REGION 6 (CALIFORNIA) 700 MHz/4.9 GHz REGIONAL PLANNING COMMITTEE

May 12, 2005

Ms. Marlene H. Dortch, Secretary Federal Communications Commission Office of the Secretary 445 12th Street, SW Washington, DC 20554

Re: Region 6 - 4.9 GHz Plan in accordance with WT Docket 00-32

Dear Ms. Dortch:

Pursuant to WT Docket 00-32, § 90.1211 (regarding submission of a 4.9 GHz regional plan), FCC 04-185 (plan submission stay order), and the release date of FCC 04-265, the Region 6 (Northern California) 700 MHz/4.9 GHz Regional Planning Committee is herewith submitting the attached plan titled "REGION 6 (Northern California) REGIONAL GUIDELINES AND RECOMMENDATIONS FOR THE 4940-4990 MHz BAND" for your review and approval.

If you have any questions regarding the proffered Region 6 plan, please contact me either by email, phone, or mail employing the contact information below.

Thank you for your consideration.

Wm De Camp

Sincerely,

William De Camp, Chair

Region 6 – 700 MHz/4.9 GHz Regional Planning Committee

c/o State of California
Department of General Services
Telecommunications Division
601 Sequoia Pacific Boulevard, MS:WH7
Sacramento, CA 95814
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Attachment

WDC:wdc\4.9 GHz Region 6 Plan Version 5-12-05 Final.pdf

OFFERING INCENTIVES FOR COOPERATION





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1 Executive Summary

In its Memorandum Opinion and Order (MO&O) and Third Report and Order (R&O) [see FCC 03-99] relative to "The 4.9 GHz Band Transferred from Federal Government Use", WT Docket Number 00-32, the FCC allocates spectrum from 4940-4990 MHz to the public safety community and outlines operational and technical requirements for its usage. The FCC's decision regarding the role of Regional Planning Committees (RPCs) and regional planning is pertinent to this plan, and as such, is synopsized as follows:

- o In its proceedings relative to *WT Docket Number 00-32*, the FCC indicated "...To facilitate the shared use of the 4.9 GHz band, each region may submit a plan on guidelines to be used for sharing the spectrum within the region".
- In a subsequent MO&O [see FCC 04-265], the FCC elaborated on its vision of the role of regional planning. That is, the FCC stated, "Our primary rationale for rejecting mandatory regional planning lies in the shared-use structure we have established for the 4.9 GHz band. Applicants that meet eligibility criteria will be granted a geographic area license for the entire fifty MHz of 4.9 GHz spectrum over a geographical area defined by the boundaries of their jurisdiction -- city, county, state, etc. Licensees are required to coordinate their operations in the shared band to avoid interference, a common practice when joint operations are conducted. The functions served by Regional Planning Committees (RPCs) in the public safety segments of the 700 MHz and 800 MHz bands entail the long-term planning for the use of specific channels by discrete licensees, in bands where public safety agencies are not granted a blanket license for the entire spectrum. Nonetheless, the Commission directed each 700 MHz RPC to consider coordination procedures for the 4.9 GHz band, and that each may submit to the Commission such a plan. It envisioned that the plans would specify best practices for efficient use of the 4.9 GHz band, including, for example, procedures to allow an incident commander to take control of emergency communications pursuant to compacts made with adjacent and overlapping jurisdictions. In the event an RPC does not submit such a plan, licensees must cooperate in the selection and use of channels in order to reduce interference and make the most effective use of authorized facilities."
- "Decision. We continue to believe that the technical expertise resident in the RPCs may be quite useful to new 4.9 GHz licensees, and we encourage dialog between them. However, we have not been shown that coordination of 4.9 GHz operations will be facilitated by requiring 4.9 GHz licensees to make mandatory use of the RPCs. The principal task of RPCs is to coordinate selection of specific channels for use at static base stations (and their associated mobiles). However, given the whole-band

licensing structure that we have established and the likelihood that deployment of 4.9 GHz equipment is likely to be dynamic rather than static, it would appear impractical to formulate, in advance, an optimum distribution of channel assignments that would be universally suitable for each incident. This is not to suggest that agencies should not coordinate use of channels at an incident, or not have a process for doing so. However, we believe that that task is best undertaken by local jurisdictions, and we thus are not prepared to mandate use of RPCs for a purpose markedly different from that for which they were formed."

In view of the FCC's vision of the role of RPCs and regional planning relative to the subject docket, the Region 6 plan is offered as best practices, or a set of "guidelines" for those eligible entities wishing to employ 4.9 GHz spectrum within Region 6. Whereas aspirant users are not required to obtain regional concurrence when utilizing 4940-4990 MHz spectrum, each is encouraged to take advantage of the services offered through the Region 6 RPC such as:

- assisting Region 6 agencies with information related to 4.9 GHz spectrum implementations
- apprizing users of existing or planned applications within the band, both within their community as well as in adjacent communities (to the extent Region 6 is informed of these applications)
- acting as a region wide clearinghouse for documenting 4.9 GHz use in the region while contributing to the development and maturity of the band within their region as a community resource, available to all eligible entities.

Pursuant to § 90.1211 Regional Plan:

- this Region 6 document advocates shared use of the 4.9 GHz band. The plan comprises organizational structure and a set of guidelines to be used as a tool to assist Regional Planning Committees (RPC) in the ongoing implementation of the band and offers suggestions and recommendations for usage
- considering that public safety's exposure to broadband applications is limited to date, the Region 6 plan needs to be a dynamic document; that is, one which evolves with public safety's growing familiarity with broadband applications and technologies. Modifications will be submitted in accordance with § 90.1211

As population density and topography vary significantly within Region 6, broadband applications using 4.9 GHz in the region will also vary. The applications and operational considerations addressed in these guidelines are to be reviewed to allow Northern California public safety entities to utilize the 4.9 GHz band as they deem necessary in meeting the needs of the public safety community in and around their jurisdictions. Users are strongly urged to review

the many filed comments contained in the history of Docket 00-32 to better understand the use of the band, including orders issued by the FCC on the public safety allocation of the 4940-4990 MHz spectrum under the docket to provide California agencies with as much information as possible when implementing the band.

There are important issues regarding 4.9 GHz deployments that need to be acknowledged by the applicant to ensure effective, efficient operation of the band. The Region 6-700 MHz regional planning committee looks forward to supporting the deployment of broadband public safety applications within Region 6 in a role supported and defined by the region.

Indemnification of Region 6

As always, the services offered through Region 6 are free and are influenced and performed by representatives of member public safety agencies or their affiliates throughout the region. Representatives of Region 6 perform their tasks to the best of their abilities. The effectiveness and timeliness of Region 6 representatives in providing these services is contingent upon (1) the validity and timeliness of information they are provided, or are able to ascertain through searches, and (2) the time Region 6 representatives are allotted by their respective agencies to perform these ancillary services (whereas the services are important – they are clearly incidental to the primary mission of each representative's organization). In view of these limitations and the fact that exercising the services offered through RPCs is voluntary, Region 6 senses a need to indemnify itself by stating the following:

IN NO EVENT SHALL REGION 6 BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THESE SERVICES, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

2 Region 6 Regional Planning Committee (RPC) Overview

In WT Docket Number 00-32, the FCC stated in paragraph #40 that "...within six months of the effective date of the rules adopted herein, the 700 MHz band regional planning committees (RPCs) must have a meeting for the express purpose of initiating consideration of coordination procedures for the 4.9 GHz band...", and "...within twelve months of the effective date of the rules adopted herein, each RPC must provide the FCC with a copy of its plan." 47 CFR Parts 2 and 90 FCC rules pertinent to the 4.9 GHz band appeared in the Federal Register the end of June, 2003 establishing an effective date of January 30th

2004 for the "kickoff" meeting and July 30th, 2003 to submit the plan. Region 6 held its kickoff meeting on October 29th, 2003 and is herewith submitting its plan.

Acting on a request by the National Association of Regional Planning Committees (NARPC), stay order FCC 04-185 adopted July 30th 2004 extended the submission deadline for the plan until six month after release of a decision resolving the petition for reconsideration filed by the National Public Safety Telecommunications Council (NPSTC) on July 30th 2003. The Commission's MEMORANDUM OPINION AND ORDER (see FCC 04-265) addressing this petition for reconsideration was released on November 12th 2004. This established a new deadline for the submission of regional plans of May 12th 2005.

The first Region 6 - 700 MHz Regional Planning Committee (RPC) was held on May 16th, 2002. Don Root convened the meeting. Mr. Root's contact information is as follows:

Donald E. Root, Jr.
Operations Support Branch
California Governor's Office of Emergency Services
3650 Schriever Ave.
Mather, California

Phone: (916) 845-8601

Email: Don Root@oes.ca.gov

At the first Region 6 – 700 MHz Regional Planning Committee meeting on May 16, 2002, William De Camp was elected Region Chair for the Region 6 – 700 MHz Regional Planning Committee. He is by default the Region 6 chair for the 4.9 GHz RPC. His contact information is as follows:

William De Camp, P.E. State of California Department of General Services Telecommunications Division 601 Sequoia Pacific Boulevard, MS:WH7 Sacramento, California 95814

Phone: (916) 657-9205

Email william.decamp@dgs.ca.gov

The following are also officers of the Region 6 – 700 MHz/4.9 GHz Regional Planning Committee:

Vice Chair
Randall Hagar
County of Alameda
General Services Agency
Communications Department
1401 Lakeside Drive, 10th Floor
Oakland, California 94612-4305

Phone (510) 208-9789 Email randall.hagar@acgov.org

Secretary

Tim Graves
State of California
DGS Telecommunications Division
601 Sequoia Pacific Boulevard
Sacramento, CA 95814

Phone: (916) 657-9260 Email tim.graves@dgs.ca.gov

Treasurer

William De Camp (see contact information above)

3 RPC Membership

Exhibit A contains the member and planning affiliate list plus contact information for Region 6. Membership is open to any interested party. Voting membership is open to Region 6 organizations meeting the eligibility criteria found in 47 Codes of Federal Regulations (CFR) §90.1203 and §90.523. Voting and operating procedures are described in Section 6 of this plan.

4 Region Description

4.1 Counties Comprising Region 6 and Adjacent Regions

For the purposes of public safety 4.9 GHz planning, the FCC recognizes 55 individual "Regions" distributed as shown in Figure 4.1 throughout the United States. The Northern California Region (Region 6) comprises the 48 counties of California situated north of the northernmost borders of San Luis Obispo, Kern and San Bernardino counties. For Region 6, and surrounding Region #'s 5, 27, and 35 details, please refer to Figures 4.1 through 4.5 below. Because of Arizona's close proximity to Region 6 (≈50 miles), it is also included below as Figure 4.6.

The Public Safety 700MHz Planning Regions

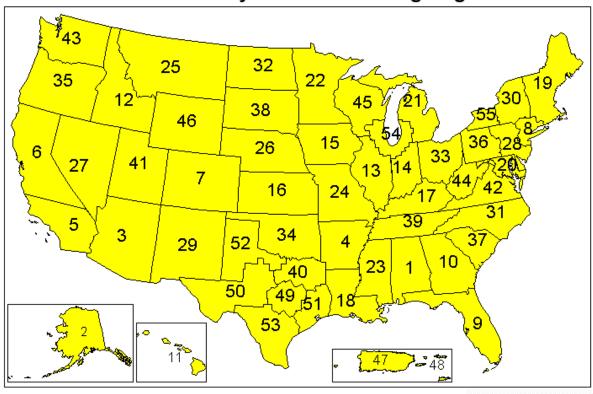
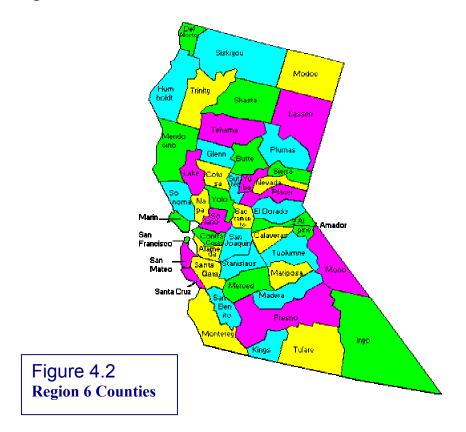


Figure 4.1: Public Safety 700 MHz/4.9 GHz Planning Regions

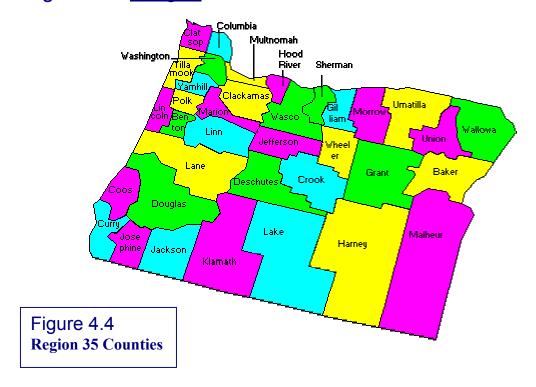
Region 6: Northern California



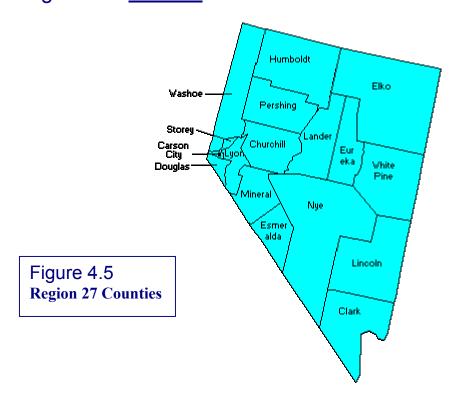
Region 5: Southern California



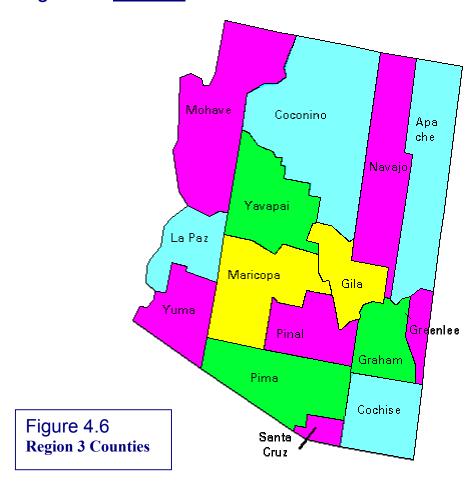
Region 35: Oregon



Region 27: Nevada



Region 3: Arizona



4.2 Incorporated Cities within Region 6

(See http://www.dof.ca.gov/HTML/DEMOGRAP/table1.xls for the latest list of cities by county for each of Region 6's 48 counties).

Alameda County	CCC (continued)	Humboldt County	Mendocino County
Alameda City	El Cerrito City	Arcata City	Fort Bragg City
Albany City	Hercules City	Blue Lake City	Point Arena City
Berkeley City	Lafayette City	Eureka City	Ukiah City
Dublin City	Martinez City	Ferndale City	Willits City
Emeryville City	Moraga Town	Fortuna City	
Fremont City	Oakley City	Rio Dell City	Merced County
Hayward City	Orinda City	Trinidad City	Atwater City
Livermore City	Pinole City		Dos Palos City
Newark City	Pittsburg City	Inyo County	Gustine City
Oakland City	Pleasant Hill City	Bishop City	Livingston City
Piedmont City	Richmond City		Los Banos City
Pleasanton City	San Pablo City	Kings County	Merced City
San Leandro City	San Ramon City	Avenal City	
Union City City	Walnut Creek City	Corcoran City	Modoc County
		Hanford City	Alturas City
Alpine County	Del Norte County	Lemoore City	
,	Crescent City City		Mono County
Amador County	- crossom only only	Lake County	Mammoth Lakes Town
Amador City City	El Dorado County	Clearlake City	Warmingth Earles Town
Ione City	Placerville City	Lakeport City	Monterey County
ione oity	South Lake Tahoe	Lakeport City	Wonterey County
Jackson City	City		Carmel-by-the-Sea City
Plymouth City	J.,	Lassen County	Del Rey Oaks City
Sutter Creek City	Fresno County	Susanville City	Gonzales City
,	Clovis City		Greenfield City
Butte County	Coalinga City	Madera County	King City City
Biggs City	Firebaugh City	Chowchilla City	Marina City
Chico City	Fowler City	Madera City	Monterey City
Gridley City	Fresno City		Pacific Grove City
Oroville City	Huron City	Marin County	Salinas City
Paradise Town	Kerman City	Belvedere City	Sand City City
	Kingsburg City	Corte Madera Town	Seaside city
Calaveras County	Mendota city	Fairfax Town	Soledad city
Angels City City	Orange Cove city	Larkspur City	
, ,	Parlier City	Mill Valley City	Napa County
Colusa County	Reedley City	Novato City	American Canyon City
Colusa City	Sanger City	Ross Town	Calistoga City
Williams City	San Joaquin City	San Anselmo Town	Napa City
-7	Selma City	San Rafael City	St. Helena City
Contra Costa Co.	1	Sausalito City	Yountville Town
Antioch City	Glenn County	Tiburon Town	
Brentwood City	Orland City		Nevada County
Clayton City	Willows City	Mariposa County	Grass Valley City
Concord City	Trinono ong		Nevada City City
	+		Truckee Town

Placer County	SMC (continued)	Sierra County	Sutter County
Auburn City	Foster City City	Loyalton City	Live Oak City
Colfax City	Half Moon Bay City		Yuba City City
Lincoln City	Hillsborough Town	Siskiyou County	
Loomis Town	Menlo Park City	Dorris City	Tehama County
Rocklin City	Millbrae City	Dunsmuir City	Corning City
Roseville City	Pacifica City	Etna City	Red Bluff City
	Portola Valley Town	Fort Jones City	Tehama City
Plumas County	Redwood City City	Montague City	
Portola City	San Bruno City	Mount Shasta City	Trinity County
•	San Carlos City	Tulelake City	
Sacramento County	San Mateo City	Weed City	Tulare County
-	South San Francisco		
Citrus Heights City	City	Yreka City	Dinuba City
Elk Grove	Woodside Town		Exeter City
Folsom City		Solano County	Farmersville City
Galt City	Santa Clara Co.	Benicia City	Lindsay City
Isleton City	Campbell City	Dixon City	Porterville City
Rancho Cordova	Cupertino City	Fairfield City	Tulare City
Sacramento City	Gilroy City	Rio Vista City	Visalia City
	Los Altos City	Suisun City City	Woodlake City
San Benito County	Los Altos Hills Town	Vacaville City	
Hollister City	Los Gatos Town	Vallejo City	Tuolumne County
San Juan Bautista City	Milpitas City		Sonora City
	Monte Sereno City	Sonoma County	
San Francisco Co.	Morgan Hill City	Cloverdale City	Yolo County
San Francisco City	Mountain View City	Cotati City	Davis City
	Palo Alto City	Healdsburg City	West Sacramento City
San Joaquin Co.	San Jose City	Petaluma City	Winters City
Escalon City	Santa Clara City	Rohnert Park City	Woodland City
Lathrop City	Saratoga City	Santa Rosa City	
Lodi City	Sunnyvale City	Sebastopol City	Yuba County
Manteca City		Sonoma City	Marysville City
Ripon City	Santa Cruz Co.	Windsor Town	Wheatland City
Stockton City	Capitola City		
Tracy City	Santa Cruz City	Stanislaus County	
	Scotts Valley City	Ceres City	
San Mateo County	Watsonville City	Hughson City	
Atherton Town		Modesto City	
Belmont City	Shasta County	Newman City	
Brisbane City	Anderson City	Oakdale City	
Burlingame City	Redding City	Patterson City	
Colma Town	Shasta Lake City	Riverbank City	
Daly City City		Turlock City	
East Palo Alto City		Waterford City	

The Northern California terrain is varied and rugged. Elevations range from sea level to over 14,000 feet (see Figure 4.2 below).

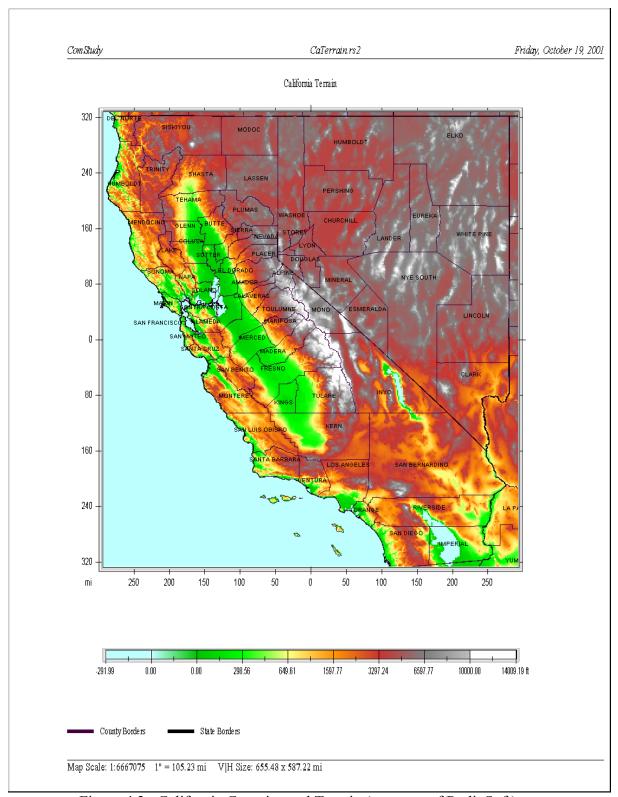
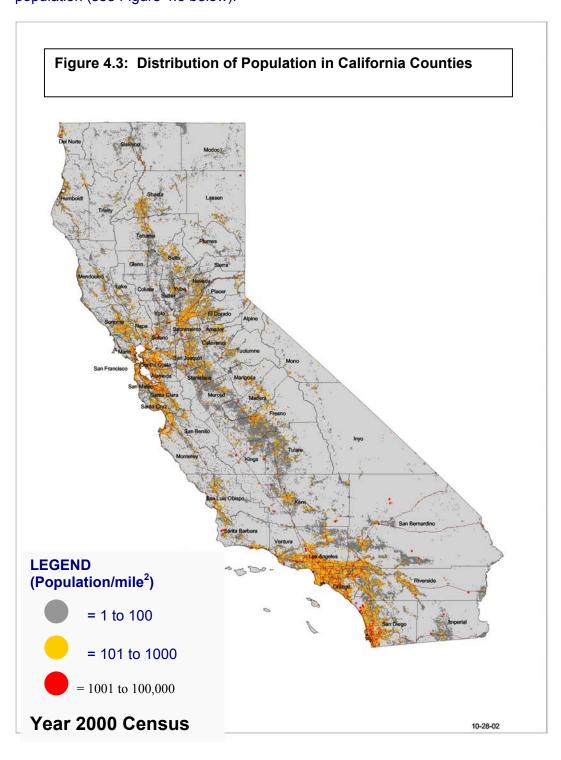


Figure 4.2: California Counties and Terrain (courtesy of RadioSoft)

The majority of Northern California's population is distributed along California's west coast in proximity to Highway 101 and along a north-south line bisecting the center of California which coincides with Highway 99 South of Sacramento, and Interstate 5 North of Sacramento. Heavy concentrations exist in California's Bay, Silicon Valley, and Central Valley areas. Other areas of Northern California have small concentrated areas of population with vast areas of mountains and some deserts with very sparse population (see Figure 4.3 below).



Of California's population of \approx 35.5 million, about 13.8 million reside within the boundaries of Region 6, and about 21.7 million within Region 5. Twelve of the forty-eight Region 6 counties contain \approx 75% of its population (see Figure 4.3 and Table 4.1 below).

Table 4.1: Twelve Counties in Region 6 Comprising ≈75% of the Population

County	% of Region 6 Population (derived from year 2000 census data)
Santa Clara	12.7
Alameda	10.9
Sacramento	9.2
Contra Costa	7.2
Fresno	6.0
San Francisco	5.9
San Mateo	5.3
San Joaquin	4.3
Sonoma	3.5
Stanislaus	3.4
Monterey	3.0
Solano	3.0
Total:	74.4

The broadband systems deployments in Region 6 are envisioned as facilitating the high speed communications needs of:

- State of California through integrations with:
 - statewide networks accommodating multiple state agencies on common infrastructures
 - o local and federal agencies that wish to participate on the statewide networks
- California Counties through integrations with:
 - countywide networks accommodating multiple County agencies on common infrastructures
 - State, City, and/or Federal agencies that wish to participate on the countywide networks
- California Cities through integrations with:
 - citywide networks which integrate multiple City agencies on common infrastructures
 - State, County, and/or Federal agencies that wish to participate on the citywide networks
- Other Eligible Public Safety/Public Service Entities

The committee anticipates an escalating public safety need for broadband data channels; that is, hardware and software technologies and applications necessitating

channels bandwidths of 1 MHz, 5 MHz, 10 MHz, and even 20 MHz will proliferate – probably exponentially over time.

5 Notification

5.1 Convening 4.9 GHz RPC Meeting

The first (convening) organizational meeting of the Region 6 Regional Planning Committee (RPC) accommodating the 4.9 GHz spectrum allocation was held on October 29, 2003. As Chair of the Region 6 – 700 MHz RPC, William De Camp convened the meeting. The meeting was advertised in the Northern Californian and electronically via an email message to all parties attending any prior Region 6 – 700 MHz RPC meeting. The FCC issued a Public Notice of the meeting (DA 03-2841). The California Governor's Office of Emergency Services (OES) sent representatives to the meeting (CA OES represents National Security and Emergency Preparedness at the state level and also coordinates with local emergency preparedness offices). A 4.9 GHz workgroup was established to prepare a plan in compliance with the FCC directive in Docket WT00-32. Two 4.9 GHz workgroup meetings were conducted before the second joint RPC meeting.

5.2 Second Combined 700 MHz/4.9 GHz RPC Meeting

The second meeting of the joint Region 6-700 MHz/4.9 GHz RPC was held on March 11, 2004. The FCC issued a Public notice for this meeting (DA 04-101). The meeting was again advertised in the Northern Californian and electronically via an email message to all parties attending any prior Region 6-700 MHz RPC meetings and any attending the first 4.9 GHz meeting. Two additional 4.9 GHz workgroup meetings were conducted before the third joint RPC meeting.

5.3 Third Combined 700 MHz/4.9 GHz RPC Meeting

The third joint Region 6 – 700 Mhz/4.9 GHz meeting was held on July 15, 2004. The FCC issued a Public notice for this meeting (DA 04-1748). The meeting was again advertised in the Northern Californian and electronically via an email message to all parties attending any prior Region 6 – 700 MHz RPC meetings and all parties attending any prior Region 6 - 4.9 GHz RPC or workgroup meetings. Three additional 4.9 GHz workgroup meetings were conducted before the fourth joint RPC meeting.

5.4 Fourth Combined 700 MHz/4.9 GHz RPC Meeting

The fourth meeting of the joint Region 6-700 MHz/4.9 GHz RPC was held on April 21, 2005. The FCC issued a Public notice for this meeting (DA 05-659). The meeting was again advertised in the Northern Californian and electronically via an email message to all parties attending any prior Region 6-700 MHz RPC meetings and any attending the first 4.9 GHz meeting.

5.5 A California Statewide Broadband Applications and Technologies Survey

As the primary purpose of the planning effort is to maximize the flexibility of use of the 4.9 GHz spectrum while minimizing the potential for interference and/or conflicts, the Region 5 and Region 6 Committees developed a spectrum use survey which in Region 6 was electronically dispatched to each of the Fire Chiefs, Sheriffs, City and County Managers, Mayors, and CIO's for whom we had email addresses in Region 6's

representative 48 counties. This SURVEY FOR DETERMINING EACH ELIGIBLE AGENCY'S NEED FOR PUBLIC SAFETY FREQUENCIES IN THE 4.9 GHZ BAND was also sent electronically via an email message to all parties attending any prior Region 6 – 700 MHz RPC meetings and all parties attending any prior Region 6 - 4.9 GHz RPC or workgroup meetings. The survey and its synopsized results were (and remain) posted at www.4.9ghz.org under "Associations", or alternatively at http://publicsafetycommunications.org/Wi-Fi-4.php. Note: The survey and its synopsized results are included as Exhibit C.1 and Exhibit C.2 respectively.

The following excerpts from the April 15th 2004 transmittal letter capture the survey's essence:

5.5.1 Regional Planning and Spectrum

(What is it, how much is there, and who will administer it?)

The 4.9 GHz band is intended to accommodate a variety of new broadband applications such as high-speed digital technologies and wireless local area networks (LAN) for incident scene management, dispatch operations and vehicular operations. This includes mobile operations, fixed hotspot use (similar to what is common with Wi-Fi), and temporary fixed links, as well as fixed point-to-point operations on a secondary basis. In addition, technology planned for this frequency band also includes the ability for the automatic formation of "Ad-Hoc" wireless LANs composed of the wireless data network elements of diverse agency units as they arrive on scene at an incident.

The FCC established a "jurisdictional" geographical licensing approach for operations in this band, whereby licensees will be licensed for the full 50 MHz and will be authorized to operate in those geographic areas over which they have jurisdiction, but they will be required to cooperate with others in the shared use of the spectrum. This band is also intended to foster interoperability by providing a regulatory framework in which traditional public safety entities can pursue strategic partnerships with both traditional public safety entities, such as the Federal Government, and non-traditional public safety entities, such as utilities and commercial entities, in support of their missions regarding homeland security and protection of life and property.

The 50 MHz spectrum within this frequency band consists of ten each 1 MHz wide channels and eight each 5 MHz channels, which can be aggregated if necessary to form wider channels up to a 20 MHz bandwidth maximum where higher data rates are desired. Maximum transmit power allowed in this band is 2 watts when a maximum bandwidth channel is required. Use of this spectrum in some areas is restricted based upon existing military training use and on radio astronomy applications. Refer to link

http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-03-99A1.doc for the FCC's Memorandum Opinion and Order and Third Report and Order of FCC Docket 00-32 detailing this 4.9 GHz public safety band.

Regional Planning Committees (RPCs) are allowed maximum flexibility to meet state and local needs, encourage innovative use of the spectrum, and accommodate new and as yet unanticipated developments in technology

equipment. They are responsible for creating and managing regional plans. For this planning activity, your *local, regional, state and tribal public safety/public service agency (or authorized multi-agency collective) – hereinafter referred to as "organization" –* is either located in Region 5 (comprising the 10 California counties south of Monterey, Kings, Tulare, and Inyo Counties) or Region 6 (comprising the 48 California counties north of San Luis Obispo, Kern, and San Bernardino Counties. See http://wireless.fcc.gov/publicsafety/700MHz/plans.html for further information.

5.5.2 Eligibility

Eligibility requirements for deploying/operating systems in the 4.9 GHz frequency band are as follows. Organizations meeting the eligibility criteria found in 47 Codes of Federal Regulations (CFR) §90.1203 and §90.523, both titled "Eligibility" (included as Attachment II for your convenience) may deploy/operate a wireless public safety communication system incorporating this imminently available 4.9 GHz public safety spectrum subject to all the Federal Communications Commission rules/conditions associated with its usage. Note: Internet addresses for a few websites providing multiple links to additional 4.9 GHz information have been provided in Attachment III for your convenience.

5.5.3 Solicitation of Interest

Subsequent to perusing and acknowledging all related conditions, if your organization envisions the development/deployment of a system that will make use of this 4.9 GHz spectrum and has a committed interest in doing so, you are asked to respond to the questionnaire below.

5.5.4 Questionnaire

The 4.9 GHz Region 5 and Region 6 Regional Planning Committee Spectrum Workgroups are each (both separately and collaboratively) working on their overall spectrum plans which will be adopted by their full committees, and ultimately the FCC. As part of this effort, these California Spectrum Workgroups require information from your organization. Please fill out the Questionnaire titled Questionnaire Seeking Quantifying and Qualifying Information Regarding Each Organization's Intended Use of the 4.9 GHz Spectrum found in Attachment I. As this matter has significant, long-term implications, we urge all eligible organizations to fully evaluate their interest with staff and superiors, and to quantify and qualify their anticipated use of the subject spectrum.

We are seeking responses to the attached survey questions not later than June 1st, 2004. Whether your agency is in Region 5 or Region 6, please submit your response electronically, or by mail to the address below¹:

William De Camp c/o CA DGS Telecommunications Division 601 Sequoia Pacific Boulevard, MS# WH7 Sacramento, CA 95814-0282

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¹ For simplicity's sake, William De Camp has been authorized to be the recipient for both Region 5 and 6 – 4.9 GHz survey responses.

5.6 List of all Region 6 – 700 MHz/4.9 GHz RPC Meetings and Attendees

A comprehensive list of Region $6-700\,MHz/4.9\,GHz$ RPC meetings and attendees through the date of this document is included as Exhibit B.,

6 REGIONAL PLAN ADMINISTRATION

6.1 Operations of the Regional Plan Committee

The Region 6 planning committee will use Robert's Rules of Order to conduct meetings. All decisions will be by clear consensus vote with each Public Safety Agency having one vote. The meetings are open to all persons and a public input time is given for anyone to express a viewpoint or to have input to the planning process.

Subcommittee workgroups may be formed as needed to work on specific issues. For the initial plan, two workgroups were formed – Resources/Technology/Applications Research and Operational Plan. Workgroups are intended to work on specific assignments and make recommendations to the full committee. Any changes to the regional plan must be voted on and approved by the full Regional Plan Committee. Workgroups are open to any person wanting to participate. The Chair of the Regional Planning Committee appoints the Chair for each workgroup.

A minimum of one meeting per year will be held including a full Regional Planning Committee meeting. This will be announced and advertised 60 days in advance by the Committee Chair. Beginning two years after Federal Communications Commission approval of this Regional Plan, the Chair shall call a meeting of the Committee to elect a Chair. Vice Chair and Secretary will also serve two-year terms. There is no limit to the number of terms that may be served. If the Chair is unable to serve a complete term the Vice Chair will serve as Chair until the next election meeting. If both the Chair and Vice Chair are unable to serve full terms, the Secretary will call a special meeting of the Committee to elect replacements. If for any reason the Secretary is unable to call a special meeting, the State or any County within the region may call for a special meeting, giving at least 60 days notice to elect replacements.

6.2 Part 90 Rules Governing Use of the 4940-4990 MHz band

It is instructive to review and reflect upon § 90.1209 as we proceed.

§ 90.1209 Policies governing the use of the 4940-4990 MHz band.

- a. Channels in this band are available on a shared basis only and will not be assigned for the exclusive use of any licensee.
- b. All licensees shall cooperate in the selection and use of channels in order to reduce interference and make the most effective use of the authorized facilities. Licensees of stations suffering or causing harmful interference are expected to cooperate and resolve this problem by mutually satisfactory arrangements. If licensees are unable to do so, the Commission may impose restrictions including specifying the transmitter

power, antenna height, or area or hours of operation of the stations concerned. Further, the Commission may prohibit the use of any 4.9 GHz channel under a system license at a given geographical location when, in the judgment of the Commission, its use in that location is not in the public interest.

- c. Licensees will make every practical effort to protect radio astronomy operations as specified in Section 2.106, footnote US311.
- d. There is no time limit for which base and temporary fixed stations authorized under a 4940-4990 MHz band license must be placed in operation. Fixed point-to-point stations which are licensed on a site-by-site basis must be placed in operation Prior to making application for new 4.9 GHz operations from the Federal Communications Commission, eligible entities are encouraged to contact the Regional Planning Committee in writing to advise the committee of intended operations in the 4.9 GHz band.

6.3 Incentives for Cooperation

§ 90.1207 Licensing states that, "...a 4940-4990 MHz band license will be issued for the geographic area encompassing the legal jurisdiction of the licensee or, in case of a nongovernmental organization, the legal jurisdiction of the state or local governmental entity supporting the nongovernmental organization." Before an eligible entity deploys a 4.9 GHz-based application, the entity is encouraged to coordinate with all known or knowable existing or aspirant 4.9 GHz band users operating or planning to operate within, or in close proximity to, the geographic area encompassing their legal jurisdiction. An interpretation of what constitutes close proximity is dependent on the technologies deployed; that is, air-to-ground and ground-based point-to-point applications may cause destructive interference further from a border than ground based personal area networks and localized incident area networks.

As an incentive towards supporting FCC's § 90.1209 ruling above which states, "...All licensees shall cooperate in the selection and use of channels in order to reduce interference and make the most effective use of the authorized facilities, we believe it serves common public safety interests if licensed operations not on record with the Regional Planning Committee are rendered secondary to coordinated uses until the licensee contacts the Regional Planning Committee, in writing, and provides information about existing and/or intended operations in the 4.9 GHz spectrum. The selection and use of channels cannot be equitably achieved unless all existing and projected uses of the 4.9 GHz band are quantified and qualified for all to see.

For its part, the Region 6 Regional Planning Committee will employ the nationally available Computer Assisted Pre-coordination Resource And Database (CAPRAD) system http://caprad.nlectc.du.edu/login/home as a common resource accessible by authorized public safety entities and/or their affiliates and consultants to help provide and document regional coordination of 4940-4990 MHz use in the band to promote efficient operation. The CAPRAD system will facilitate coordinating 4.9 GHz spectrum resources in areas where multiple 4.9 GHz operations exist and/or are proposed. The Regional Planning Committee plans to act as a clearinghouse for public safety agencies – providing information and facilitating resource sharing where feasible.

A list of existing licensees within close proximity of the proposed area of operation will be provided to the applicant upon request.

6.4 Adjacent Region Coordination

Northern California's Region 6 shares borders with Southern California's Region 5, Arizona's Region 3, Nevada's Region 27, and Oregon's Region 35. The region has a small population density along all borders. The prior coordination of any envisioned applications of the 4.9 GHz band is also strongly encouraged within close proximity of any adjacent region's border. Aspirant users are urged to coordinate their intentions with all entities having a vested interest. This should, as a minimum, include all licensed 4.9 GHz entities.

6.5 Dispute Resolution

In the event an agency disputes the implementation of this plan after FCC approval, the agency may voluntarily notify the Chair of the dispute in writing. The Chair will attempt to resolve the dispute on an informal basis. If a party to the dispute employs the Chair, then the Vice Chair will attempt resolution. In such cases, the Chair shall be deemed to have a conflict of interest and will be precluded from voting on such matters. If after 30 days the dispute is not resolved, the Chair (or Vice Chair) will appoint an ad-hoc Dispute Resolution Committee. The committee shall be comprised of a member from the State of California and members selected from representatives of the counties in the region. No member selected may be from an agency involved in the dispute. The Dispute Resolution committee will select a Chair to head the committee. The Regional Plan Chair (or Vice Chair) will represent the Region in presentations to the Dispute Resolution Committee. The Committee will hear input from the disputing agency, any affected agencies, and the Region Chair. The Committee will then meet in executive session to prepare a recommendation to resolve the dispute. Should this recommendation not be acceptable to the disputing agency or agencies, the dispute and all written documentation will be forwarded to the Federal Communications Commission for final resolution.

7 Interference Protection

The Regional Planning Committee does not have the authority necessary to enforce interference protection in the 4.9 GHz band. The primary goal of the Region 6 planning effort is to maximize the flexibility of use of the 4.9 GHz spectrum while minimizing the potential for interference and/or conflicts. Region 6 hopes to mitigate the potential for interference through advocating and practicing "prior proper planning" to the extent practicable. As a first step in this process, in conjunction with Region 5 (Southern CA), we have evolved and adopted the set of guideline constructs iterated below. These constructs are developed in **Section 8 Region 6 – 4.9 GHz Planning Guidelines** below.

7.1 Region 6 – 4.9 GHz Guideline Constructs

- The guidelines will specify a frequency plan for point-to-point and air-toground operations.
- Agency shared systems will be encouraged.
- Primary use of the 4.9 GHz band will be for Incident Area Networks (IAN)
 operating under the ICS management system. Jurisdictional Area
 Networks (JAN) and Personal Area Networks (PAN) must not interfere
 with IAN operations.
- A priority structure will be established. Priority of use will emulate a modified version of the CA mutual aid priority list.
- Region 5 and Region 6 will use the CAPRAD system to maintain a database of fixed stations.
- Agencies are encouraged to purchase equipment designed to open standards that is interoperable.
- Air to Ground bandwidth per channel to be 2.5 MHz. Four channels will be allocated (10 MHz).
- Will develop a method to coordinate temporary point-to-point links.

8 Planning Guidelines

The FCC permits aggregated channel bandwidths of 5, 10, 15, or 20 MHz. Channel numbers 1-5 (yellow) and 14-18 (blue) are 1 MHz channels. Channel numbers 6-13 (green) are 5 MHz channels.

Center Frequency (MHz)	Channel Nos.
<mark>4940.5</mark>	<mark>1</mark>
<mark>4941.5</mark>	2
<mark>4942.5</mark>	<mark>3</mark>
<mark>4943.5</mark>	<mark>4</mark>
<mark>4944.5</mark>	<mark>5</mark>
<mark>4947.5</mark>	6
<mark>4952.5</mark>	<mark>7</mark>
<mark>4957.5</mark>	8
<mark>4962.5</mark>	9
4967.5	<mark>10</mark>
<mark>4972.5</mark>	<mark>11</mark>
<mark>4977.5</mark>	<mark>12</mark>
<mark>4982.5</mark>	<mark>13</mark>

4985.5	<mark>14</mark>
<mark>4986.5</mark>	<mark>15</mark>
<mark>4987.5</mark>	<mark>16</mark>
<mark>4988.5</mark>	<mark>17</mark>
<mark>4989.5</mark>	<mark>18</mark>

8.1 Developed Region 6 – 4.9 GHz Planning Guidelines

8.1.1 Shared Systems Strongly Advocated

The 4.9 GHz band is equally shared by all public safety agencies operating within their geographical boundaries. The spectrum allocation, while large in traditional terms, is a limited resource for the intended broadband data uses. This will require agencies operating in the same geographical area to cooperate in sharing the spectrum. As an example of a City, County and the State operating in the same geographical area, if multiple services (like police, fire and public works) from each agency decided to operate independent systems, the broadband channels would be quickly exhausted. Sharing will be important in this band. These guidelines are intended to facilitate that sharing.

8.1.2 Incident Area Network Preference

Primary use of the band is for Incident Area Networks (IAN). Personal Area Network (PAN), Jurisdictional Area Network (JAN) and Extended Area Network (EAN) operations are secondary to IAN operations. Incident commanders will have authority to establish user priority and temporary rules of operation on all 4.9 GHz systems operating within the affected area of the incident command, but will make reasonable attempts to coordinate frequency usage with other existing users of the 4.9 GHz band that have quantified and qualified their systems pursuant to **6.3 Incentives for Cooperation** above.

8.1.3 Open Standards

In order to share the spectrum and to foster interoperability, eligible agencies are encouraged to purchase equipment that is based on open standards and will operate between different vendors. Agencies are encouraged to develop multi-agency systems for joint and extended area networks. Agencies should always coordinate wide area networks with all agencies that might operate in the same geographical area.

8.1.4 CAPRAD System Use

This Committee intends to use the CAPRAD system to document system information and facilitate its availability to all interested public safety agencies. This will enhance and enable agency sharing of the spectrum in this band.

8.1.5 Point-to-Point Links

Use of point-to-point links is expected. Agencies are encouraged to use the one MHz channels (five each at the bottom and top of the band) for point-to-point links. Agencies

should avoid these channels for access point operations. Under FCC rules, temporary links have primary status. Permanent links are secondary. However, many areas of California are very rural and can benefit greatly from permanent links connecting remote radio sites. All agencies are encouraged to check the CAPRAD or FCC database before establishing a temporary link and therefore to protect permanent links to the greatest extent possible.

8.1.6 Employing the California Standardized Emergency Management System

All Incident Area Network (IAN) events utilizing the 4.9 GHz band should operate under the State's Standardized Emergency Management System. A communications officer position should be assigned to manage the 4.9 GHz band plan. The State's priority list should be used to resolve conflicts of use:

Priority 1 Disaster and extreme emergency operations for mutual aid and interagency communications

Priority 2 Emergency or urgent operations involving imminent danger to the safety of life or property

Priority 3 Special event control activities, generally of a pre-planned nature, and generally involving joint participation of two or more agencies

Priority 3a Drills, tests and exercises

Priority 4 Single agency secondary communications

8.1.7 Air-to-Ground One-Way Video Links

Air-to-Ground one-way video links were identified by the workgroup members as a high priority use for this band. This need was identified in Region 5 for Los Angeles County agencies and by some Orange County agencies. Agencies in several Region 6 counties have also indicated a need for this capability. The joint California Region 5 and Region 6 Committees have worked with manufactures of the video equipment to develop transmitters that only occupy 2.5 MHz of bandwidth for acceptable video quality. The two California Committees are also planning some testing to determine the impact on the Radio Astronomy site at Goldstone. The testing will also quantify the interference impact to ground hotspots. The California Committees consider ground IAN operations to have priority, however airborne video surveillance is routinely a vital part of incident management. The two Committees recognize that air-to-ground video will require a waver by the Commission. The two Committees will be participating in air-to-ground testing in Southern California. The Committees, using the test results, plan to supplement their respective guidelines to facilitate agencies pursuing waivers. At this time, the Committees recommend that four each 2.5 MHz channels be created from channels 6 and 7. All air-to-ground video links should operate on those channels.

EXHIBITS

EXHIBIT A

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Morris, Laurel Communications Manager Technical Services Division Palo Alto Police Department	laurel.morris@cityofpaloalto.org	Palo Alto Police Department Technical Services Division 275 Forest Avenue Palo Alto, CA 94301	(650) 329-2661
Nash, Glen Senior Engineer Department of General Services	glen.nash@dgs.ca.gov	Department of General Services Telecommunications Division 601 Sequoia Pacific Blvd., MS-19 Sacramento, CA 95814	(916) 657-9454

Members & Planning Affiliates	Email Address	Mailing Address	Phone #
Nydam, Mike	mike@airaya.com	AIRAYA	(408) 776-9583
President and CEO		637 Adair Court	
AIRAYA		Morgan Hill, CA 95037	
Ockers, Ben	bockers@terabeam.com	Tera Beam Wireless	(408) 617-8150
Sales Manager		990 Almanor Avenue	
Tera Beam Wireless		Sunnyvale, CA 94085	
Olson, Albert	aolson@reddingpolice.org	Redding Police Department	(530) 225-4327
Sergeant		1313 California Street	
Redding Police Department		Redding, CA 96001	
Osborn, Michael	michael.Osborn@ci.stockton.ca.us	City of Stockton	(209) 937-8120
Information Technology Manager		425 N. El Dorado Street	
City of Stockton		Stockton, CA 95202	
Overacker, Steve	sover@doit.co.contra-costa.ca.us	Contra Cost County	(925) 957-7701
Telecommunications Manager		Department of Information Technology	
Department of Information Technology		30 Douglas Drive	
Contra Costa County		Martinez, CA 94553-4068	
Pabst, Bill	bpabst@airaya.com	AIRAYA	(408) 776-9583
VP, Engineering Chief Technologist		637 Adair Court	
AIRAYA		Morgan Hill, CA 95037	
Phelps, Floyd	fphelps@tallycom.com	TallyCom	(800) 223-4949
State Accounts		23125 Bernhardt Street	Ext. 1311
TallyCom		Hayward, CA 94545	
Powell, John	jpowell@uslink.berkeley.edu	U.S. Department of Justice and Homeland	(510) 410-2858
Senior Consulting Engineer		Security	
U.S. Dept. of Justice and Homeland Security		790 Washington Street Suite 909	
		Denver, CO 80203	
Rinehart, Bette	C18923@email.mot.com	Motorola, Inc.	(717) 334-0654
Regulatory Affairs Manager		28 Twin Lakes Drive	, , , , , , , ,
Motorola, Inc.		Gettysburg, PA 17325	
Root, Don	don_root@oes.ca.gov	Office of Emergency Services	(916) 845-8601
Deputy Chief, Telecommunications		P.O. Box 419047	
Governor's Office of Emergency Services		Rancho Cordova, CA 95741-9047	
Rowland, Gregg	gregg@packethop.com	Packet Hop, Inc.	(650) 292-5006
Rowland, Anne	<u> </u>	1301 Shoreway Road, Suite 200	() 1 / 1 / 1 / 1

Members & Planning Affiliates	Email Address	Mailing Address	Phone #
Vice-President of PacketHop, Inc		Belmont, CA 94002	
Sastry, Ambatipudi R. Chief Technology Officer Packet Hop, Inc.	asastry@packethop.com	Packet Hop, Inc. 1301 Shoreway Road, Suite 200 Belmont, CA 94002	(650) 292-5003
Schmidt, John Engineering Manager, Northern Districts Department of Transportation	john schmidt@dot.ca.gov	Department of Transportation Maintainance Program Office of Radio Communications, MS 77 1120 N Street Sacramento, CA 95814	(916) 654-6709
Scott, Eric Associate Telecommunications Engineer Department of General Services	eric.scott@dgs.ca.gov	Department of General Services Telecommunications Division 601 Sequoia Pacific Blvd., MS-WH7 Sacramento, CA 95814	(916) 657-9184
Shearn, Donna Lieutenant Newark Police Department	donna.shearn@newark.org	Newark PoliceDepartment 37101 Newark Blvd. Newark CA 94560	(510) 794-2379
Smith, Steve Northern California Area Sales Manager M/A-COM Wireless	steven.smith@tycoelectronics.com		(206) 331-2357
Staylon, Wayne Technical Deputy Director Stanislaus County	staylonw@mail.co.stanislaus.ca.us	Stanislaus County 3705 Oakdale Road Modesto, CA 95357	(209) 552-3900
Stuber, Ken Telecommunications. Engineer I. T. Department City of Sacramento	kstuber@cityofsacramento.org	City of Sacramento, I.T. Department Technical Support Services Division 904 11 th Street Sacramento, CA 95814	(916) 808-8511
Svoboda, Krasna Principal Clarian Telecommunications Consulting LLC	k.svoboda@mac.com	2911 State Street, Suite B Carlsbad, CA 92008	(760) 720-1848
Thomson, Preston Frequeny Advisor NAPCO	thomsonp@apco911.org	APCO 6868 Country Court Granite Bay, CA 95746	(916) 797-5395
Tognetti, Dan	dtognetti@cityofnapa.org	City of Napa	(707) 257-9527

Members & Planning Affiliates	Email Address	Mailing Address	Phone #
Telecommunications Specialist City of Napa		Telecommunications Division P.O. Box 660 770 Jackson Street Napa, CA 94559	
Tolman, Tom Director, NPSTC Support Office; Manager, Communications Technology	ttolman@du.edu	2050 East Iliff Avenue Denver, CO 80208	(303) 871-4190
Tong, Al Communications Planner City and County of San Francisco	al.tong@sfgov.org	City and County of San Francisco Office of Emergency Services & Homeland Security 1011 Turk Street San Francisco, CA 94102	(415) 558-3810
Vallee, Rich Telecommunications Engineer Department of Transportation	rich.vallee@dot.ca.gov	Department of Transportation Information Technology 1823 14 th Street, MS-80 Sacramento, CA 95814	(916) 445-0478
Vell, Jim Captain Sacramento Metropolitan Fire Department	vell.jim@smfd.ca.gov	Sacramento City 2101 Hurley Way Sacramento, CA 95825-3208	(916) 566-4373
Wilson-Sroii, Terry Administrative Supervisor, Communications Bureau, Technical Services Division Sacramento County Sheriff's Department	twilson@sacsheriff.com	711 G. Street Sacramento, CA 95814	(916) 874-8323
Wright, Robert Regional Manager, Telecommunications AMR	robert wright@amr-ems.com	AMR NPR Communications Division 801 10th Street, 6th Floor Modesto, CA 95354	(209) 238-4855
Yuson, Tony Project Manager County of Sacramento	tyuson@co.sanmateo.ca.us	County of San Mateo ISD 455 County Center 3rd Floor Redwood City, CA 94063	(916) 599 1065

EXHIBIT B

Comprehensive List Of Region 6 – 700 MHz/4.9 GHz Meetings And Attendees

	MEETING TYPE (RPC, Workgroup [WG], or Subgroup [SG])																	
Attendees	Email Address	Phone #	5/16/02 – First (1st) RPC	7/25/02 - Operations & I/O WG	7/25/02 – Spectrum WG	8/29/02 – Spectrum WG	10/03/02 – Second (2 nd) RPC	4/14/03 – Third (3 rd) RPC	6/17/03 – By-Laws, Ops & /IO WG	6/18/03 – Spectrum WG	10/29/03 – First 4.9 GHz RPC	10/29/03 - Fourth 700 MHz RPC	12/04/03 – 4.9 GHz WG	12/04/03 – 700 MHz WG	2/05/04 – 4.9 GHz WG	2/05/04 – 700 MHz WG	3/11/04 – Second 4.9 GHz RPC	3/11/04 – Fifth 700 MHz RPC
Alga, Gene	galga@co.alameda.ca.us	(510) 667-7791						X	X	X								
Allison, Ron	allison@sna.com	(916) 875-3153	X	X														
Azevedo, Angela	aazevedo@chp.ca.gov	(916) 375-2501	X	X	X				X		X							
Baker, Chris	cbaker@roseville.ca.us	(916) 847-8480									X	X	X	X			X	X
Betts, Terry	tbett@so.co.contra-costa.ca.us	(925) 313-2453	X		X		X				X	X						
Biancalana, Carol	cbiancal@emsa.ca.gov	(916) 322-4336	X	X	X		X											
Blau, Jeff	jeff.blau@motorola.com	(925) 484-3002					X											
Matt Brown	mbrown@tallycom.com	(510) 783-2111									X							
Bryant, Doris	dbryant@co.alameda.ca.us	(510) 208-9789				X	X											

	MEETING TYPE (RPC, Workgroup [WG], or Subgroup [SG])																	
Attendees	Email Address	Phone #	5/16/02 – First (1 st) RPC	7/25/02 - Operations & I/O WG	7/25/02 – Spectrum WG	8/29/02 – Spectrum WG	10/03/02 - Second (2 nd) RPC	4/14/03 – Third (3 rd) RPC	6/17/03 – By-Laws, Ops & /IO WG	6/18/03 – Spectrum WG	10/29/03 – First 4.9 GHz RPC	10/29/03 – Fourth 700 MHz RPC	12/04/03 – 4.9 GHz WG	$12/04/03 - 700 \mathrm{MHz}\mathrm{WG}$	2/05/04 – 4.9 GHz WG	2/05/04 – 700 MHz WG	3/11/04 – Second 4.9 GHz RPC	3/11/04 – Fifth 700 MHz RPC
Buchanan, David	dbuchanan@isd.sbcounty.org	(909 387-3337																
											X	X						
Byard, Chuck	Byard@ci.redding.ca.us	(530) 949 1560						X	X	X								
Cassani, Tom	cassani@ci.walnut-creek.ca.us	(925) 256-3597								X	X							
Coates, James	jim.coates@gsa.co.santa- clara.ca.us	(408) 299-2713																
Conde, Kevin	kconde@marysville.ca.us	(530) 822-2940											X				X	
Conley, Wayne	wayne.conley@acgov.org	(510) 667-7788									X						X	
Crawford, Criss	criss_crawford@amr-ems.com	(209) 567-4027						X										
Robert Cross	cross2225@comcast.net	(530) 671-0228															X	
Cummings, Corey	corey.cummings@corr.ca.gov	(916) 324-2691					X				X	X						
De Camp, Bill	william.decamp@dgs.ca.gov	(916) 657-9205	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

		MEETING TYPE (RPC, Workgroup [WG], or Subgroup [SG])																
Attendees	Email Address	Phone #	5/16/02 – First (1 st) RPC	7/25/02 - Operations & I/O WG	7/25/02 – Spectrum WG	8/29/02 – Spectrum WG	10/03/02 – Second (2 nd) RPC	4/14/03 – Third (3 rd) RPC	6/17/03 – By-Laws, Ops & /IO WG	6/18/03 – Spectrum WG	10/29/03 – First 4.9 GHz RPC	10/29/03 – Fourth 700 MHz RPC	12/04/03 – 4.9 GHz WG	12/04/03 – 700 MHz WG	2/05/04 – 4.9 GHz WG	2/05/04 – 700 MHz WG	3/11/04 – Second 4.9 GHz RPC	3/11/04 – Fifth 700 MHz RPC
Divine, Steve	devins@mshp.state.mo.us	(573) 526-6105									***	***						
,											X	X						
Doble, Mike	mdoble@comcast.net	(925) 735-9848									X	X	X	X	X	X	X	X
Eierman, Dave	david.eierman@motorola.com	(410) 712-6242									X	X						
Eldridge, Kent	eldridgek@saccounty.net	(916) 875-6438	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Elwell, Dennis	dennis.elwell@dgs.ca.gov	(916) 657-9459										X						
Engstrom, Harry	hengstro@co.alameda.ca.us	(510) 667-7788			X	X	X											
Finster, Brent	bfins@cccfpd.org	(925) 930-5550	X	X	X		X		X		X	X						
Fox, John	jfox@police.uscf.edu	(415) 476-9240															X	
Funk, Dave	dafunk@du.edu	(303) 871-2439									X	X						

		MEETING TYPE (RPC, Workgroup [WG], or Subgroup [SG])																
Attendees	Email Address	Phone #	5/16/02 – First (1st) RPC	7/25/02 - Operations & I/O WG	7/25/02 – Spectrum WG	8/29/02 – Spectrum WG	10/03/02 – Second (2 nd) RPC	4/14/03 – Third (3 rd) RPC	6/17/03 – By-Laws, Ops & /IO WG	6/18/03 – Spectrum WG	10/29/03 – First 4.9 GHz RPC	10/29/03 - Fourth 700 MHz RPC	12/04/03 – 4.9 GHz WG	12/04/03 - 700 MHz WG	2/05/04 – 4.9 GHz WG	2/05/04 – 700 MHz WG	3/11/04 – Second 4.9 GHz RPC	3/11/04 – Fifth 700 MHz RPC
Gibbons, Patricia	patricia.gibbons@ci.sj.ca.us	(408) 277-4082	X	X	X		X	X	X	X								
Goode, Charles	cgoode@police.ucsf.edu	(415) 476-0620															X	
Graillat, Chris	cgraillat@emsa.ca.gov	(916) 322-4336						X	X	X	X		X	X	X		X	X
Shelley Grant	sgrant@marin.org	(415) 499-7313									X	X						
Grootveld, Gary	gary.grootveld@dgs.ca.gov	(916) 657-9381									X		X					
Hagar, Randy	randall.Hagar@acgov.org	(510) 208-9789	X	X	X	X	X	X	X		X	X			X	X	X	X
Haggard, Jeff	haggard.jeff@srfd.ca.gov	(916) 566-4372									X	X	X	X	X	X	X	X
Hanes, Pat	phanes@reddingpolice.org	(530) 225 4266						X	X	X	X	X	X	X	X	X	X	X
Hedgpeth, Roger	rhedgpeth@emsa.ca.gov	(916) 322-4336	X	X	X	X												
Hlivak, Robert J.	robert.j.hlivak@hawaii.gov	(808) 586 1930									X	X						

	MEETING TYPE (RPC, Workgroup [WG], or Subgroup [SG])																	
Attendees	Email Address	Phone #	5/16/02 – First (1st) RPC	7/25/02 - Operations & I/O WG	7/25/02 – Spectrum WG	8/29/02 – Spectrum WG	10/03/02 – Second (2 nd) RPC	4/14/03 – Third (3 rd) RPC	6/17/03 – By-Laws, Ops & /IO WG	6/18/03 – Spectrum WG	10/29/03 – First 4.9 GHz RPC	10/29/03 – Fourth 700 MHz RPC	12/04/03 – 4.9 GHz WG	12/04/03 - 700 MHz WG	2/05/04 – 4.9 GHz WG	2/05/04 – 700 MHz WG	3/11/04 - Second 4.9 GHz RPC	3/11/04 – Fifth 700 MHz RPC
		Ext. 013																
Hojeij, Wade	wade.hojeij@dgs.ca.gov	(916) 657-9213							X	X	X	X	X	X	X	X	X	X
Johl, Balbir	balbir.johl@dgs.ca.gov	(916) 657-6131									X	X						
Johnson, Dan	dan 1 Johnson@dot_ca.gov	(916) 654-7273									X							
Kelleher, Dan	C12073@motorola.com	(650) 318-3222									X	X					X	X
Kerr, Doug	doug@lpnwireless.com	(707) 781-9210									X	X	X		X	X	X	
Kiener, Alex	alex.keener@co.santa-cruz.ca.us	(831) 454-2025									X	X						
Klose, Heinz	hklose@placer.ca.gov	(530) 889-7740									X	X						
Knight, Curt	cknight@dps.state.az.us	(602) 223-2257									X							
Kostas, Mike	mkostas@marysville.ca.us	(530) 749-3912									X	X	X		X		X	

		MEETING TYPE (RPC, Workgroup [WG], or Subgroup [SG])																
Attendees	Email Address	Phone #	5/16/02 – First (1st) RPC	7/25/02 - Operations & I/O WG	7/25/02 – Spectrum WG	8/29/02 – Spectrum WG	10/03/02 – Second (2 nd) RPC	4/14/03 – Third (3 rd) RPC	6/17/03 – By-Laws, Ops & /IO WG	6/18/03 – Spectrum WG	10/29/03 – First 4.9 GHz RPC	10/29/03 - Fourth 700 MHz RPC	12/04/03 – 4.9 GHz WG	12/04/03 – 700 MHz WG	2/05/04 – 4.9 GHz WG	2/05/04 – 700 MHz WG	3/11/04 - Second 4.9 GHz RPC	3/11/04 – Fifth 700 MHz RPC
Krout, Terry	tkrout@co.marin.ca.us	(415) 499-6584											X					
Laye, Tom	tlaye@ci.santa-clara.ca.us	(408) 615-5591	X	X	X		X	X							X	X		
Li, Sheung	sheung@atheros.com	(408) 773-5295									X							
Lin, Vincent	vincent.lin@dgs.ca.gov	(916) 657-9118									X	X			X	X	X	X
Lindly, Tom	tlindly@ci.santa-clara.ca.us	(408) 615-5593									X	X						
Linfor, Jon	jlinfor@sacsheriff.com	(916) 874-6734	X	X	X	X	X	X			X							
Lowry, George	george.lowry@oes.ca.gov	(916) 845-8608									X		X	X	X		X	
Marin, Glenn	gmarin@ixpcorp.com	(562) 696-1286													X	X		
Martin, Mike	martin.mike@srfd.ca.gov	(916) 566-4376									X							
Martzen, Ken	kmartzen@emsa.ca.gov	(916) 255-4162													X	X	X	X

					MEE	TIN	G TY	PE (R	PC, V	Vorkg	roup	[WG], or \$	Subgr	roup	[SG])		
Attendees	Email Address	Phone #	5/16/02 – First (1 st) RPC	7/25/02 - Operations & I/O WG	7/25/02 – Spectrum WG	8/29/02 – Spectrum WG	10/03/02 – Second (2 nd) RPC	4/14/03 – Third (3 rd) RPC	6/17/03 – By-Laws, Ops & /IO WG	6/18/03 – Spectrum WG	10/29/03 – First 4.9 GHz RPC	10/29/03 – Fourth 700 MHz RPC	12/04/03 – 4.9 GHz WG	12/04/03 – 700 MHz WG	2/05/04 – 4.9 GHz WG	2/05/04 – 700 MHz WG	3/11/04 - Second 4.9 GHz RPC	3/11/04 – Fifth 700 MHz RPC
McRae, Mike	mmcrae@smud.org	(916) 732 6963																
Wickac, Wilke	mmerae(a)smad.org	(510) 752 0505	X															
Melton, Roger	roger.melton@dgs.ca.gov	(916) 657-9132	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Moore, Randy	rmoore@co.alameda.ca.us	(510) 618-3467					X											
Nash, Glen	glen.nash@dgs.ca.gov	(916) 657-9454	X					X										
Olson, Albert	aolson@reddingpolice.org	(530) 225-4327									X	X						
Osborn, Michael	michael.Osborn@ci.stockton.ca.u <u>s</u>	(209) 937-8120																X
Overacker, Steve	sover@doit.co.contra-costa.ca.us	(925) 957-7701	X			X	X	X	X	X	X	X	X	X	X	X	X	X
Phillips, Laura	lphillips@ci.sunnyvale.ca.us	(408) 730-7165									X	X						
Powell, John	jpowell@uslink.berkeley.edu	(510) 410-2858	X	X	X	X		X			X	X						

					MEE	TING	G TY	PE (R	RPC, V	Vorkg	group	[WG], or \$	Subgr	oup	[SG])		
Attendees	Email Address	Phone #	5/16/02 – First (1st) RPC	7/25/02 - Operations & I/O WG	7/25/02 – Spectrum WG	8/29/02 – Spectrum WG	10/03/02 – Second (2 nd) RPC	4/14/03 – Third (3 rd) RPC	6/17/03 – By-Laws, Ops & /IO WG	6/18/03 – Spectrum WG	10/29/03 – First 4.9 GHz RPC	10/29/03 - Fourth 700 MHz RPC	12/04/03 – 4.9 GHz WG	12/04/03 – 700 MHz WG	2/05/04 – 4.9 GHz WG	2/05/04 – 700 MHz WG	3/11/04 – Second 4.9 GHz RPC	3/11/04 – Fifth 700 MHz RPC
Reid, Craig	creid@packehop.com	(650) 292-5002											X					
Rinehart, Bette	C18923@email.mot.com	(717) 334-0654									X	X						
Root, Don	don_root@oes.ca.gov	(916) 845-8601	X	X	X	X	X	X			X	X	X	X			X	X
Sairanen, Scoop	scoop.sairanen@dgs.ca.gov	(916) 657-9166	X	X							X	X						
Sastry, Ambatipudi R.	asastry@packethop.com	(650) 292-5003									X							
Schmidt, John	john_schmidt@dot.ca.gov	(916) 654-6709					X											
Smith, Steve	steven.smith@tycoelectronics.co m	(206) 331-2357															X	X
Stuber, Ken	kstuber@cityofsacramento.org	(916) 808-8511		X	X						X	X					X	
Talamantes, Carlos	carlos.talamantes@corr.ca.gov	(916) 445 6203						X			X	X	X	X	X		X	X
Thomson, Preston	thomsonp@apco911.org	(916) 797-5395	X	X	X	X	X	X			X	X	X	X	X		X	

					MEE	TING	G TY	PE (R	PC, V	Vorkg	group	[WG], or §	Subgr	oup	[SG])		
Attendees	Email Address	Phone #	5/16/02 – First (1st) RPC	7/25/02 - Operations & I/O WG	7/25/02 – Spectrum WG	8/29/02 – Spectrum WG	10/03/02 – Second (2 nd) RPC	4/14/03 – Third (3 rd) RPC	6/17/03 - By-Laws, Ops & /IO WG	6/18/03 – Spectrum WG	10/29/03 - First 4.9 GHz RPC	10/29/03 – Fourth 700 MHz RPC	12/04/03 – 4.9 GHz WG	12/04/03 – 700 MHz WG	2/05/04 – 4.9 GHz WG	2/05/04 – 700 MHz WG	3/11/04 - Second 4.9 GHz RPC	3/11/04 – Fifth 700 MHz RPC
Tolman, Tom	ttolman@du.edu	(303) 871-4190									X	X						
Vallee, Rich	rich.vallee@dot.ca.gov	(916) 445-0478									X	X						
Vell, Jim	vell.jim@smfd.ca.gov	(916) 566-4373	X	X	X	X	X	X			X	X						
Wilson, Terry	twilson@sacsheriff.com	(916) 874-8323						X	X	X								
Worden, Tom	tom_worden@oes.ca.gov	(916) 845-8602	X	X	X													
Wright, Robert	robert_wright@amr-ems.com	(209) 238-4855						X										
Yuson, Tony	tyuson@co.sanmateo.ca.us	(916) 599 1065	X	X	X													

				MEE	TINC	G TYI	PE (R	PC, V	Vorkg	group	[WG], or \$	Subgr	oup [SC	G])
Attendees	Email Address	Phone #	4/22/04 – 4.9 GHz WG	4/22/04 – 700 MHz WG	6/22/04 – 4.9 GHz WG	6/22/04 – 700 MHz WG	7/15/04 – Third 4.9 GHz RPC	7/15/04 – Sixth 700 MHz RPC	8/24/04 - 4.9 GHz WG	8/24/04 – 700 MHz WG	12/07/04 – 4.9 GHz WG	12/07/04 – 700 MHz WG	01/04/05 – 4.9 GHz SSG	04/21/05 – Fourth 4.9 GHz RPC	04/21/05 –Seventh 700 MHz RPC
Akbari, Jason	jason_akbari@dot.ca.gov	(916) 654-6661					X	X							
Alga, Gene	galga@co.alameda.ca.us	(510) 667-7791													
Allison, Ron	allison@sna.com	(916) 875-3153													
Azevedo, Angela	aazevedo@chp.ca.gov	(916) 375-2501					X	X	X	X					
Baker, Chris	cbaker@roseville.ca.us	(916) 847-8480									X	X	X		
Barush, Roy	rbarush@co.napa.ca.us	(707) 299-1301												X	X
Betts, Terry	tbett@so.co.contra-costa.ca.us	(925) 313-2453													
Biancalana, Carol	cbiancal@emsa.ca.gov	(916) 322-4336													
Blau, Jeff	jeff.blau@motorola.com	(925) 484-3002													

				MEE	TINC	G TYI	PE (R	PC, V	Vorkş	group	[WG], or \$	Subgr	oup [SC	G])
Attendees	Email Address	Phone #	4/22/04 – 4.9 GHz WG	4/22/04 - 700 MHz WG	6/22/04 – 4.9 GHz WG	6/22/04 – 700 MHz WG	7/15/04 – Third 4.9 GHz RPC	7/15/04 – Sixth 700 MHz RPC	8/24/04 - 4.9 GHz WG	8/24/04 – 700 MHz WG	12/07/04 – 4.9 GHz WG	12/07/04 – 700 MHz WG	01/04/05 – 4.9 GHz SSG	04/21/05 – Fourth 4.9 GHz RPC	04/21/05 –Seventh 700 MHz RPC
Breen, Matthew	matthew.breen@newark.org	(510) 790-7587												X	X
Brown, Matt	mbrown@tallycom.com	(510) 783-2111													
Bruinzeel, Jasper	Jasper.bruinzeel@alvarion.co m	(760) 517-3149							X	X			X		
Bryant, Doris	dbryant@co.alameda.ca.us	(510) 208-9789													
Buchanan, David	dbuchanan@isd.sbcounty.org	(909 387-3337											X		
Byard, Chuck	byard@ci.redding.ca.us	(530) 949 1560													
Cassani, Tom	cassani@ci.walnut-creek.ca.us	(925) 256-3597													
Coates, James	jim.coats@911.sccgov.org	(408) 977-3210					X	X							
Cook, Mary	mcook@emsa.ca.gov	(9160 322-4336												X	X
Conde, Kevin	kconde@marysville.ca.us	(530) 822-2940													

				MEE	TINC	G TYI	PE (R	PC, V	Vorkş	group	[WG], or \$	Subgr	oup [SC	G])
Attendees	Email Address	Phone #	4/22/04 – 4.9 GHz WG	4/22/04 – 700 MHz WG	6/22/04 – 4.9 GHz WG	6/22/04 – 700 MHz WG	7/15/04 – Third 4.9 GHz RPC	7/15/04 – Sixth 700 MHz RPC	8/24/04 - 4.9 GHz WG	8/24/04 – 700 MHz WG	12/07/04 – 4.9 GHz WG	$12/07/04 - 700 \mathrm{MHz}\mathrm{WG}$	01/04/05 – 4.9 GHz SSG	04/21/05 – Fourth 4.9 GHz RPC	04/21/05 –Seventh 700 MHz RPC
Conley, Wayne	wayne.conley@acgov.org	(510) 667-7788													
Comey, wayne	wayne.comey@acgov.org	(610) 667 7766		X						X					
Crawford, Criss	criss_crawford@amr-ems.com	(209) 567-4027													
Robert Cross	cross2225@comcast.net	(530) 671-0228													
Cummings, Corey	corey.cummings@corr.ca.gov	(916) 324-2691													
De Camp, Bill	william.decamp@dgs.ca.gov	(916) 657-9205	X	X	X	X	X	X	X	X	X	X	X	X	X
deCastro, Glenn	glenn.decastro@sfgov.org	(415) 558-3816												X	X
Divine, Steve	steve.devine@mshp.dps.mo.go	(573) 526-6105											X		
Doble, Mike	mdoble@proxim.com	(925) 735-9848	X	X	X	X	X	X	X	X	X	X	X	X	X
Dupre, Steve	sdupre@co.sanmateo.ca.us	(650) 363-4443					X	X							
Eierman, Dave	david.eierman@motorola.com	(410) 712-6242													

				MEE	TINO	G TYI	PE (R	PC, V	Vork	group	[WG], or \$	Subgr	oup [SC	G])
Attendees	Email Address	Phone #	4/22/04 – 4.9 GHz WG	4/22/04 - 700 MHz WG	6/22/04 – 4.9 GHz WG	6/22/04 – 700 MHz WG	7/15/04 – Third 4.9 GHz RPC	7/15/04 – Sixth 700 MHz RPC	8/24/04 - 4.9 GHz WG	8/24/04 – 700 MHz WG	12/07/04 – 4.9 GHz WG	12/07/04 – 700 MHz WG	01/04/05 – 4.9 GHz SSG	04/21/05 – Fourth 4.9 GHz RPC	04/21/05 –Seventh 700 MHz RPC
T11:1 TZ /	11:1-10	(016) 975 (429													
Eldridge, Kent	eldridgek@saccounty.net	(916) 875-6438	X	X	X	X	X	X	X	X	X	X	X		
Elwell, Dennis	dennis.elwell@dgs.ca.gov	(916) 657-9459													
Engstrom, Harry	hengstro@co.alameda.ca.us	(510) 667-7788													
Finster, Brent	bfins@cccfpd.org	(925) 930-5550													
Forrest, Greg	gforrest@macro.com	(925) 210-1500 Ext: 222												X	X
Fox, John	jfox@police.uscf.edu	(415) 476-9240													
Funk, Dave	dafunk@du.edu	(303) 871-2439													
Gibbons, Patricia	patricia.gibbons@ci.sj.ca.us	(408) 277-4082													
Goode, Charles	cgoode@police.ucsf.edu	(415) 476-0620						X							X
Graillat, Chris	cgraillat@emsa.ca.gov	(916) 322-4336			X		X	X							

				MEE	TINO	G TYI	PE (R	PC, V	Vork	group	[WG], or \$	Subgr	oup [SC	G])
Attendees	Email Address	Phone #	4/22/04 – 4.9 GHz WG	4/22/04 – 700 MHz WG	6/22/04 – 4.9 GHz WG	6/22/04 – 700 MHz WG	7/15/04 – Third 4.9 GHz RPC	7/15/04 – Sixth 700 MHz RPC	8/24/04 - 4.9 GHz WG	8/24/04 – 700 MHz WG	12/07/04 – 4.9 GHz WG	12/07/04 – 700 MHz WG	01/04/05 – 4.9 GHz SSG	04/21/05 – Fourth 4.9 GHz RPC	04/21/05 –Seventh 700 MHz RPC
Grant, Shelley	sgrant@marin.org	(415) 499-7313													
Graves, Tim	tim.graves@dgs.ca.gov	(916) 657-9260							X	X	X	X	X	X	X
Grootveld, Gary	gary.grootveld@dgs.ca.gov	(916) 657-9381													
Hagar, Randy	randall.hagar@acgov.org	(510) 208-9789	X	X	X		X	X			X	X	X	X	X
Haggard, Jeff	haggard.jeff@srfd.ca.gov	(916) 566-4372	X	X											
Hamilton, Larry	hamiltonl@saccounty.net	(916) 874-2489									X	X			
Hanes, Pat	phanes@reddingpolice.org	(530) 225 4266			X	X	X	X	X	X					
Harman, Ron	ron.harman@motorola.com							X							
Hedgpeth, Roger	rhedgpeth@emsa.ca.gov	(916) 322-4336													
Herold, Tom	therold@bart.gov	(510) 464-6535					X	X							
Hlivak, Robert J.	robert.j.hlivak@hawaii.gov	(808) 586 1930													

				MEE	TINC	G TYI	PE (R	PC, V	Vork	group	[WG], or \$	Subgr	oup [SC	G])
Attendees	Email Address	Phone #	4/22/04 – 4.9 GHz WG	4/22/04 – 700 MHz WG	6/22/04 – 4.9 GHz WG	6/22/04 – 700 MHz WG	7/15/04 – Third 4.9 GHz RPC	7/15/04 – Sixth 700 MHz RPC	8/24/04 - 4.9 GHz WG	8/24/04 – 700 MHz WG	12/07/04 – 4.9 GHz WG	12/07/04 – 700 MHz WG	01/04/05 – 4.9 GHz SSG	04/21/05 – Fourth 4.9 GHz RPC	04/21/05 –Seventh 700 MHz RPC
		Ext. 013													
Hoang, Terri	Terri.hoang@cityofpaloalto.or g	(650) 496-6969							X	X					
Hojeij, Wade	wade.hojeij@dgs.ca.gov	(916) 657-9213			X	X									
Isaac, John	jisaac@clarecomputer.com	(925) 277-0690												X	X
Johl, Balbir	balbir.johl@dgs.ca.gov	(916) 657-6131													
Johnson, Dan	dan 1 johnson@dot_ca.gov	(916) 654-7273									X	X			
Kelleher, Dan	C12073@motorola.com	(650) 318-3222					X	X						X	X
Kerr, Doug	dougker@attglobal.net	(707) 433-2477					X	X	X	X			X	X	
Kiener, Alex	alex.keener@co.santa- cruz.ca.us	(831) 454-2025													
Klose, Heinz	hklose@placer.ca.gov	(530) 889-7740						X						_	

				MEE	TINC	G TYI	PE (R	PC, V	Vorkg	group	[WG], or \$	Subgr	oup [SC	G])
Attendees	Email Address	Phone #	4/22/04 – 4.9 GHz WG	4/22/04 – 700 MHz WG	6/22/04 – 4.9 GHz WG	6/22/04 – 700 MHz WG	7/15/04 – Third 4.9 GHz RPC	7/15/04 – Sixth 700 MHz RPC	8/24/04 - 4.9 GHz WG	8/24/04 – 700 MHz WG	12/07/04 – 4.9 GHz WG	12/07/04 – 700 MHz WG	01/04/05 – 4.9 GHz SSG	04/21/05 – Fourth 4.9 GHz RPC	04/21/05 –Seventh 700 MHz RPC
Knight, Curt	cknight@dps.state.az.us	(602) 223-2257													
Kostas, Mike	mkostas@marysville.ca.us	(530) 749-3912													
Krout, Terry	tkrout@co.marin.ca.us	(415) 499-6584													
Laye, Tom	tlaye@ci.santa-clara.ca.us	(408) 615-5591					X	X	X	X					
Leatherman, Rick	rleatherman@dataradio.com	(480) 361-6125												X	X
Li, Sheung	sheung@atheros.com	(408) 773-5295													
Lin, Vincent	vincent.lin@dgs.ca.gov	(916) 657-9118			X	X									
Lindly, Tom	tlindly@ci.santa-clara.ca.us	(408) 615-5593													
Linfor, Jon	jlinfor@sacsheriff.com	(916) 874-6734													
Longnecker, Jim	jim.longnecker@dacom- co.com	(916) 422-0665					X								

				MEE	TINC	G TYI	PE (R	PC, V	Vorkş	group	[WG], or \$	Subgr	oup [SC	G])
Attendees	Email Address	Phone #	4/22/04 – 4.9 GHz WG	4/22/04 – 700 MHz WG	6/22/04 – 4.9 GHz WG	6/22/04 – 700 MHz WG	7/15/04 – Third 4.9 GHz RPC	7/15/04 – Sixth 700 MHz RPC	8/24/04 - 4.9 GHz WG	8/24/04 – 700 MHz WG	12/07/04 – 4.9 GHz WG	$12/07/04 - 700 \mathrm{\ MHz\ WG}$	01/04/05 – 4.9 GHz SSG	04/21/05 – Fourth 4.9 GHz RPC	04/21/05 –Seventh 700 MHz RPC
Lowry, George	george.lowry@oes.ca.gov	(916) 845-8608	X												
Marin, Glenn	gmarin@ixpcorp.com	(562) 696-1286													
Martin, Mike	martin.mike@srfd.ca.gov	(916) 566-4376													
Martzen, Ken	kmartzen@emsa.ca.gov	(916) 255-4162									X				
McRae, Mike	mmcrae@smud.org	(916) 732 6963													
Meditz, Mike	mike.meditz@acgov.org	(510) 272-3636													X
Melton, Roger	roger.melton@dgs.ca.gov	(916) 657-9132	X	X	X	X	X	X	X	X	X	X	X		
Middlebrooks, Andy	amiddlebrooks@dataradio.co	(770) 392-0002 Extension 250												X	X
Moore, Randy	randall.Moore@acgov.org	(510) 618-3467													
Morris, Laurel	laurel.morris@cityofpaloalto.o	(650) 329-2661					X	X	X	X	X	X			
Nash, Glen	glen.nash@dgs.ca.gov	(916) 657-9454													

				MEE	TINC	G TYI	PE (R	PC, V	Vork	group	[WG], or \$	Subgr	oup [SC	G])
Attendees	Email Address	Phone #	4/22/04 – 4.9 GHz WG	4/22/04 – 700 MHz WG	6/22/04 – 4.9 GHz WG	6/22/04 – 700 MHz WG	7/15/04 – Third 4.9 GHz RPC	7/15/04 – Sixth 700 MHz RPC	8/24/04 - 4.9 GHz WG	8/24/04 – 700 MHz WG	12/07/04 – 4.9 GHz WG	12/07/04 – 700 MHz WG	01/04/05 – 4.9 GHz SSG	04/21/05 – Fourth 4.9 GHz RPC	04/21/05 –Seventh 700 MHz RPC
Nydam, Mike	mike@airaya.com	(408) 776-9583												X	
Ockers, Ben	bockers@terabeam.com	(408) 617-8150									X	X	X		
Olson, Albert	aolson@reddingpolice.org	(530) 225-4327													
Osborn, Michael	michael.Osborn@ci.stockton.c	(209) 937-8120	X	X	X	X	X	X	X	X					
Overacker, Steve	sover@doit.co.contra- costa.ca.us	(925) 957-7701		X	X	X	X	X	X	X	X	X	X	X	X
Pabst, Bill	bpabst@airaya.com	(408) 776-9583												X	
Phillips, Laura	Lphillips@ci.sunnyvale.ca.us	(408) 730-7165													
Powell, John	jpowell@uslink.berkeley.edu	(510) 410-2858													
Reid, Craig	creid@packehop.com	(650) 292-5002													
Rinehart, Bette	C18923@email.mot.com	(717) 334-0654													

				MEETING TYPE (RPC, Workgroup [WG]										, or Subgroup [SG])				
Attendees	Email Address	Phone #	4/22/04 – 4.9 GHz WG	4/22/04 – 700 MHz WG	6/22/04 – 4.9 GHz WG	6/22/04 – 700 MHz WG	7/15/04 – Third 4.9 GHz RPC	7/15/04 – Sixth 700 MHz RPC	8/24/04 - 4.9 GHz WG	8/24/04 – 700 MHz WG	12/07/04 – 4.9 GHz WG	$12/07/04 - 700 \mathrm{MHz}\mathrm{WG}$	01/04/05 – 4.9 GHz SSG	04/21/05 – Fourth 4.9 GHz RPC	04/21/05 –Seventh 700 MHz RPC			
Root, Don	don root@oes.ca.gov	(916) 845-8601																
Root, Don	doil_100t(d/ocs.ca.gov	(210) 042-0001									X	X	X	X	X			
Rowland, Gregg Rowland, Anne	gregg@packethop.com	(650) 292-5006					X											
Sairanen, Scoop	scoop.sairanen@dgs.ca.gov	(916) 657-9166			X													
Sastry, Ambatipudi R.	asastry@packethop.com	(650) 292-5003																
Schmidt, John	john_schmidt@dot.ca.gov	(916) 654-6709					X	X			X	X	X					
Scott, Eric	eric.scott@dgs.ca.gov	(916) 657-9184											X					
Shearn, Donna	donna.shearn@newark.org	(510) 794-2379													X			
Smith, Steve	steven.smith@tycoelectronics.	(206) 331-2357					X	X										
Staylon, Wayne	staylonw@mail.co.stanislaus.c a.us	(209) 552-3900			X	X												
Stuber, Ken	kstuber@cityofsacramento.org	(916) 808-8511					X	X	X	X	X	X	X	X	X			

			MEETING TYPE (RPC, Workgroup [WG], or Subgroup [SG])													
Attendees	Email Address	Phone #	4/22/04 – 4.9 GHz WG	4/22/04 – 700 MHz WG	6/22/04 – 4.9 GHz WG	6/22/04 – 700 MHz WG	7/15/04 – Third 4.9 GHz RPC	7/15/04 – Sixth 700 MHz RPC	8/24/04 - 4.9 GHz WG	8/24/04 – 700 MHz WG	12/07/04 – 4.9 GHz WG	12/07/04 – 700 MHz WG	01/04/05 – 4.9 GHz SSG	04/21/05 – Fourth 4.9 GHz RPC	04/21/05 –Seventh 700 MHz RPC	
Svoboda, Krasna	k.svoboda@mac.com						X	X								
Talamantes, Carlos	carlos.talamantes@corr.ca.gov	(916) 445 6203					X	X						X	X	
Thomson, Preston	thomsonp@apco911.org	(916) 797-5395												X	X	
Tognetti, Dan	dtognetti@cityofnapa.org	(707) 257-9527												X	X	
Tolman, Tom	ttolman@du.edu	(303) 871-4190														
Tong, Al	al.tong@sfgov.org	(415) 558-3810												X	X	
Vallee, Rich	rich.vallee@dot.ca.gov	(916) 445-0478														
Vell, Jim	vell.jim@smfd.ca.gov	(916) 566-4373														
Wilson, Terry	twilson@sacsheriff.com	(916) 874-8323														
Worden, Tom	tom_worden@oes.ca.gov	(916) 845-8602														

			MEETING TYPE (RPC, Workgroup [WG], or Subgroup [S										oup [SC	J)	
Attendees	Email Address	Phone #	4/22/04 – 4.9 GHz WG	4/22/04 – 700 MHz WG	6/22/04 – 4.9 GHz WG	6/22/04 – 700 MHz WG	7/15/04 - Third 4.9 GHz RPC	7/15/04 – Sixth 700 MHz RPC	8/24/04 - 4.9 GHz WG	8/24/04 – 700 MHz WG	12/07/04 – 4.9 GHz WG	12/07/04 – 700 MHz WG	01/04/05 – 4.9 GHz SSG	04/21/05 – Fourth 4.9 GHz RPC	04/21/05 –Seventh 700 MHz RPC
Wright, Robert	robert_wright@amr-ems.com	(209) 238-4855													
Yuson, Tony	tyuson@co.sanmateo.ca.us	(916) 599 1065					X	X							

EXHIBIT C.1

April 2004 Survey For Determining Each Eligible Agency's Need For Public Safety Frequencies In The 4.9 GHz Band

SURVEY FOR DETERMINING EACH ELIGIBLE AGENCY'S NEED FOR PUBLIC SAFETY FREQUENCIES IN THE 4.9 GHZ BAND DUE JUNE 1ST

April 15th, 2004

Any Eligible Region 5 & 6 Public Safety/Public Service Organization California, U.S.A

Attn: Public Safety Communications Managers

Subject: Imminently Available Broadband Public Safety Spectrum in the 4.9 GHz Band

Reference: The MS Word and .pdf survey documents posted on April 15th available on the Region 5 (CPRA) and Region 6 websites (<u>www.cpra.org</u> and <u>www.rgn6rpc.org</u> respectively).

Dear Sir or Madam:

4.9 GHz Public Safety Spectrum

Acting on WT Docket 00-32, in April 2003 the FCC adopted new service rules for the 50 megahertz of spectrum in the 4940 – 4990 MHz band (also known as the 4.9 GHz band). This spectrum has been reallocated from Federal Government use to Public Safety use for wide bandwidth data systems on a primary basis, and fixed (point-to-point) links on a secondary basis. In adopting the Rules for this new spectrum, the FCC again adopted the Regional Planning Committee (RPC) process to coordinate the spectrum at a Regional level.

Regional Planning and Spectrum (What is it, how much is there, and who will administer it?)

The 4.9 GHz band is intended to accommodate a variety of new broadband applications such as high-speed digital technologies and wireless local area networks (LAN) for incident scene management, dispatch operations and vehicular operations. This includes mobile operations, fixed hotspot use (similar to what is common with Wi-Fi), and temporary fixed links, as well as fixed point-to-point operations on a secondary basis. In addition, technology planned for this frequency band also includes the ability for the automatic formation of "Ad-Hoc" wireless LANs composed of the wireless data network elements of diverse agency units as they arrive on scene at an incident.

SURVEY FOR DETERMINING EACH ELIGIBLE AGENCY'S NEED FOR PUBLIC SAFETY FREQUENCIES IN THE 4.9 GHZ BAND DUE JUNE 1ST

The FCC established a "jurisdictional" geographical licensing approach for operations in this band, whereby licensees will be licensed for the full 50 MHz and will be authorized to operate in those geographic areas over which they have jurisdiction, but they will be required to cooperate with others in the shared use of the spectrum. This band is also intended to foster interoperability by providing a regulatory framework in which traditional public safety entities can pursue strategic partnerships with both traditional public safety entities, such as the Federal Government, and non-traditional public safety entities, such as utilities and commercial entities, in support of their missions regarding homeland security and protection of life and property.

The 50 MHz spectrum of this frequency band consists of ten each 1 MHz wide channels and eight each 5 MHz channels, which can be aggregated if necessary to form wider channels up to a 20 MHz bandwidth maximum where higher data rates are desired. Maximum transmit power allowed in this band is 2 watts when a maximum bandwidth channel is required. Use of this spectrum in some areas is restricted based upon existing military training use and on radio astronomy applications. Refer to link http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-03-99A1.doc for the FCC's Memorandum Opinion and Order and Third Report and Order of FCC Docket 00-32 detailing this 4.9 GHz public safety band.

Regional Planning Committees (RPCs) are allowed maximum flexibility to meet state and local needs, encourage innovative use of the spectrum, and accommodate new and as yet unanticipated developments in technology equipment. They are responsible for creating and managing regional plans. For this planning activity, your *local*, *regional*, *state and tribal public safety/public service agency (or authorized multi-agency collective) – hereinafter referred to as "organization"* – is either located in Region 5 (comprising the 10 California counties south of Monterey, Kings, Tulare, and Inyo Counties) or Region 6 (comprising the 48 California counties north of San Luis Obispo, Kern, and San Bernardino Counties. See http://wireless.fcc.gov/publicsafety/700MHz/plans.html for further information.

Eligibility

Eligibility requirements for deploying/operating systems in the 4.9 GHz frequency band are as follows. Organizations meeting the eligibility criteria found in 47 Codes of Federal Regulations (CFR) §90.1203 and §90.523,

SURVEY FOR DETERMINING EACH ELIGIBLE AGENCY'S NEED FOR PUBLIC SAFETY FREQUENCIES IN THE 4.9 GHZ BAND DUE JUNE 1ST

both titled "Eligibility" (included as Attachment II for your convenience) may deploy/operate a wireless public safety communication system incorporating this imminently available 4.9 GHz public safety spectrum subject to all the Federal Communications Commission rules/conditions associated with its usage. Note: Internet addresses for a few websites providing multiple links to additional 4.9 GHz information have been provided in Attachment III for your convenience.

Solicitation of Interest

Subsequent to perusing and acknowledging all related conditions, if your organization envisions the development/deployment of a system that will make use of this 4.9 GHz spectrum and has a committed interest in doing so, you are asked to respond to the questionnaire below.

Questionnaire

The 4.9 GHz Region 5 and Region 6 Regional Planning Committee Spectrum Workgroups are each (both separately and collaboratively) working on their overall spectrum plans which will be adopted by their full committees, and ultimately the FCC. As part of this effort, these California Spectrum Workgroups require information from your organization. Please fill out the Questionnaire titled Questionnaire Seeking Quantifying and Qualifying Information Regarding Each Organization's Intended Use of the 4.9 GHz Spectrum found in Attachment I. As this matter has significant, long-term implications, we urge all eligible organizations to fully evaluate their interest with staff and superiors, and to quantify and qualify their anticipated use of the subject spectrum.

We are seeking responses to the attached survey questions not later than June 1st, 2004. Whether your agency is in Region 5 or Region 6, please submit your response electronically, or by mail to the address below¹:

William De Camp c/o CA DGS Telecommunications Division 601 Seguoia Pacific Boulevard, MS# WH7 Sacramento, CA 95814-0282

Call me at (916) 657-9205 or email me at william.decamp@dgs.ca.gov if you have questions regarding the foregoing.

Sincerely,

¹ For simplicity's sake, William De Camp has been authorized to be the recipient for both Region 5 and 6 – 4.9 GHz survey responses.

SURVEY FOR DETERMINING EACH ELIGIBLE AGENCY'S NEED FOR PUBLIC SAFETY FREQUENCIES IN THE 4.9 GHZ BAND DUE JUNE $1^{\rm ST}$

Bill De Camp, Chairperson Region 6 – 4.9 GHz Regional Planning Committee

SURVEY FOR DETERMINING EACH ELIGIBLE AGENCY'S NEED FOR PUBLIC SAFETY FREQUENCIES IN THE 4.9 GHZ BAND DUE JUNE $1^{\rm ST}$

Attachment Table of Contents

Attachment #	Title	Page
Attachment I	Questionnaire Seeking Quantifying and Qualifying Information Regarding Each Organization's Intended Use of the 4.9 GHz Wireless Broadband Spectrum	6
Attachment II	47 Code of Federal Regulations (CFR) §90.523 (Eligibility For Systems Operating In The 764-776 MHz And 794-806 MHz Frequency Bands), and 47 Code of Federal Regulations (CFR) §90.1203 (Eligibility For Systems Operating In The 4,940 to 4,990 MHz Frequency Band)	23
Attachment III	Links to additional 4.9 GHz information	25

ATTACHMENT I

Questionnaire Seeking Quantifying and Qualifying Information Regarding Each Organization's Intended Use of the 4.9 GHz Spectrum

SURVEY FOR DETERMINING EACH ELIGIBLE AGENCY'S NEED FOR PUBLIC SAFETY FREQUENCIES IN THE 4.9 GHZ BAND DUE JUNE 1ST

Questionnaire Seeking Quantifying and Qualifying Information Regarding Each Organization's Intended Use of the 4.9 GHz Broadband Spectrum

The general term "ORGANIZATION" as used throughout the following questionnaire implies either:

- Any local, regional, state, or tribal public safety/public service single agency or bureau. Some examples include: San Jose Fire Department; Placer County Sheriff's Office; and Bay Area Rapid Transit District), or
- Any local, regional, state, or tribal public safety/public service formal multi-agency or multi-bureau cooperative. Some examples include: the Yolo County Communications Emergency Service Agency (YCCESA) a Joint Powers Agency; and the County of Sacramento Regional Radio Communications System Systems Management Group)

The term "SERVICE AREA" as used throughout this questionnaire describes the area throughout which your organization has jurisdiction **and** a need for wireless public safety radio communications coverage. In many cases, service areas are defined by geopolitical boundaries; for example, a County boundary often² defines a County's service area throughout which County wireless public safety radio communications services would typically be desirable or necessary.

Many organizations have only one Service Area; however, if your organization is comprised of multiple Service Areas, copy Question #2's tables, and complete the appropriate table for each unique Service Area, or set of Service Areas. Give each Service Area an abbreviated location/agency descriptor such as San Jose Fire, or Redding Police & Fire, and tie each to a Service Area # starting with "1", then "2", et cetera, because the tables in Questions 3 through 8 seek further information based on Service Area #'s 1, 2, 3, 4, et cetera.

For your convenience, the responses to two unique scenarios have been included at the end of each question on the survey form (with the exceptions of Question #'s 1 and 9 for which the responses are self-explanatory).

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² Exceptions include Counties containing National Parks, Military Test Ranges, et cetera. Final 4.9 GHz Survey 04-15-04.doc

SURVEY FOR DETERMINING EACH ELIGIBLE AGENCY'S NEED FOR PUBLIC SAFETY FREQUENCIES IN THE 4.9 GHZ BAND DUE JUNE $\mathbf{1}^{\text{ST}}$

1. Who in your organization is sanctioned to address future communications needs, and coordinate organization decisions relative to this important opportunity; what is their contact information?

	Contact Informa	ntion	
Title:			
Organization:			
Mailing Address:			
Office Phone #:			
Mobile Phone #:			
FAX#:			
Pager #:			
Email Address:			
Comments:			

2. Describe each of your organization's Service Areas. In most cases, Service Areas are defined by geopolitical boundaries; for example, a County boundary defines a County's Service Area.

Instructions: Please fill out the table(s) below applying to your organization's jurisdiction(s). Some organizations have only one Service Area; however, if your organization is comprised of multiple Service Areas, complete the appropriate table for each Service Area(s)(copy Question #2's tables as necessary).

One of the tables below will apply to each Service Area type. If your service area(s) comprise(s):

0	a city, or part of a city	complete Table 2.1
0	unincorporated land	complete Table 2.2
0	multiple areas within a county	complete Table 2.3
0	a single county	complete Table 2.4
0	a Northern CA area greater than a single	complete Table 2.5
	county	
0	a Southern CA area greater than a single	complete Table 2.6
	county	
0	If coverage is required in every California	complete Tables 2.5
	county, so state in comments under both	and 2.6
	Table 2.5 and Table 2.6	

TABLE 2.1 – COMPLETE IF YOUR SERVICE AREA (JURISDICTIONAL AREA) ENCOMPASSES ONLY ONE ENTIRE CITY, OR PART OF A CITY

If your jurisdiction encompasses only **one** full City, name the City. If your jurisdiction encompasses only part of the City, name the City – **AND**INCLUDE A MAP SHOWING YOUR JURISDICTIONAL

BOUNDARIES:

Enter City name below

City:

Describe your organization's Service Area (Question #2 continued from previous page).

TABLE 2.2 – COMPLETE IF YOUR SERVICE AREA ENCOMPASSES PRIMARILY UNINCORPORATED (RURAL) LAND (I.E., A FIRE DISTRICT COMPRISING UNPOPULATED AND/OR LIGHTLY POPULATED AREAS)

If your jurisdiction encompasses only unincorporated land, name the City closest to the incorporated jurisdictional area - AND INCLUDE A MAP SHOWING YOUR JURISDICTIONAL BOUNDARIES:

Enter City name below
City:

TABLE 2.3 – COMPLETE IF YOUR SERVICE AREA(S) CONSIST OF URBAN AND/OR SUBURBAN AREA(S) LESS THAN ONE COUNTY, BUT MORE THAN ONE CITY IN SIZE

	nprises more area than on cted Cities – AND INCLU	
•	ONAL BOUNDARIES:	
	City Names	
City #1:	City #11:	
City #2:	City #12:	
City #3:	City #13:	
City #4:	City #14:	
City #5:	•••	
City #6:	<i>City</i> # "N"	
City #7:		
City #8:	Example #1:	Jurisdiction includes two Cities
City #9:	City 100	City A (see map on next page)
City #10:	City 101	City B (see map on next page)

Describe your organization's Service Area (Question #2 continued from previous page).

TABLE 2.4 – COMPLETE IF YOUR SERVICE AREA ENCOMPASSES ONE ENTIRE COUNTY

If your jurisdiction consists of one entire County, name County:					
Enter County name below					
County:					

Describe your organization's Service Area (Question #2 continued)

TABLE 2.5 – COMPLETE IF YOUR SERVICE AREA ENCOMPASSES MORE THAN ONE REGION 6 NORTHERN CA COUNTY

	JURISDICTIONAL BO	DE A MAP SHOWING YOU DUNDARIES:
County Name		ich you require radio coverage)*
Alameda	Madera	San Mateo
Alpine	Marin	Santa Clara
Amador	Mariposa	Santa Cruz
Butte	Mendocino	Shasta
Calaveras	Merced	Sierra
Colusa	Modoc	Siskiyou
Contra Costa	Mono	Solano
Del Norte	Monterey	Sonoma
El Dorado	Napa	Stanislaus
Fresno	Nevada	Sutter
Glenn	Placer	Tehama
Humboldt	Plumas	Trinity
Inyo	Sacramento	Tulare
Kings	San Benito	Tuolumne
Lake	San Francisco	Yolo
Lassen	San Joaquin	Yuba
Comments:		
Comments:		
	PLETE IF YOUR SERVIC S OF REGION 5 SOUTHI	CE AREA ALSO INCLUDES ERN CA COUNTIES
If your jurisdic	ted below – <mark>AND INCLU</mark> I	than one County, checkmark of the county of
If your jurisdic Counties affec	ted below – AND INCLUI JURISDICTIONAL BO	DE A MAP SHOWING YOU DUNDARIES:
If your jurisdic Counties affec County Name	ted below – AND INCLUI JURISDICTIONAL BO (check all Counties within wh	DE A MAP SHOWING YOU DUNDARIES: nich you require radio coverage)*
If your jurisdic Counties affec County Name Imperial	ted below – AND INCLUI JURISDICTIONAL BO (check all Counties within wheel) Orange	DE A MAP SHOWING YOU DUNDARIES: nich you require radio coverage)* San Diego
If your jurisdic Counties affec County Name	ted below – AND INCLUI JURISDICTIONAL BO (check all Counties within wh	DE A MAP SHOWING YOU DUNDARIES: nich you require radio coverage)*

3. Assign each unique geographic area identified in Question #2 above an abbreviated location/discipline descriptor such as San Francisco Fire, or Redding Police & Fire, and tie each to a Service Area # starting with "1", then "2", et cetera, for use in your responses to subsequent Questions. If your geographic jurisdiction exceeds one City or County in size, break it up (as in Table #'s 2.3 and 2.5 above) into city- or county-sized Service Areas for the purposes of this survey; for example, if your jurisdiction includes the contiguous Counties of Sacramento, the western portion of Placer, and the western portion of El Dorado, list Sacramento County's Service Area as #N, Placer County's as #N+1, and El Dorado County's as N+2 (see Table 3.1 below for an example of this case).

TABLE 3.1 – CORRELATES SERVICE AREA # WITH LOCATION/DISCIPLINE DESCRIPTOR

Enter Location/ Discipline Descriptor Below		Service Area #
	operates within	Service Area #1
	operates within	Service Area #2
	operates within	Service Area #3
	operates within	Service Area #4
	operates within	Service Area #5
	operates within	Service Area #6
	operates within	Service Area #7
	operates within	Service Area #8
	operates within	Service Area #9
	operates within	Service Area #10
	operates within	Service Area #11
	operates within	Service Area #12
	•••	•••
	operates within	Service Area # "N"

Avalon

Comments:		

Examples:		
Utopia Police & Fire	operates within	Service Area #1
Avalon Police	operates within	Service Area #2
Heavenly County SO, Fire, and PW	operates within	Service Area #3

4. What number of California citizens will be served by your organization's systems; that is, what is the approximate population of citizens within your Service Area(s)? Include projected population growth rates over the next ten years.

Instructions: Please fill out the table below. Most organizations have one Service Area; however, if your organization is comprised of multiple Service Areas, please provide location, population, and projections for Service Area #'s 2, 3, et cetera, as appropriate.

TABLE 4.1 – CURRENT AND FUTURE POPULATION WITHIN YOUR SERVICE AREA

	Location/Discipline	Year 2000	Year 2014
	Descriptor (from Question #3 above)	Population	Projected Population
Service Area #1			
Service Area #2			
Service Area #3			
Service Area #4			
Service Area #5			
Service Area #6			
Service Area #7			
Service Area #8			
•••			
Service Area # "N"			
Comments:			•

Examples						
Service Area #1	Utopia Police & Fire	80,865	122,316*			
Service Area #2	Avalon Police	9,008	11,886**			
Service Area #3	Heavenly County Fire, SO, & PW	1,223,499	1,614381**			
Comments: Based u	pon statistical trends over th	e last 10 years:				
*Figure reflects a 3.	*Figure reflects a 3.0% per year projected population growth in Utopia					
**Figures reflect a 2.0% per year projected population growth in both the City of						
Avalon and Heaven	ly County					

Note: Refer to California Department of Finance Demographic Research Unit 2000 Census URL at http://www.dof.ca.gov/HTML/DEMOGRAP/table1.xls for year 1990 and 2000 city and county population data and growth percentages)

5. a) For each Service Area, pick the busiest "A", "B", and "C" shift for a typical week (e.g., possibly Monday for "A" shift, and Friday or Saturday for "B" and "C" shifts). Identify how many potential broadband (BB) wireless device users and how many vehicles are deployed for each of the busiest "A", "B", and "C" shifts (cover number of radio users on each shift overlap and each shift-plusspecial-detail). We're looking for the typical weekly high (peak) number(s) here.

Please fill out the table below. Some agencies have one Service Area; however, if your organization is comprised of multiple Service Areas, supply wireless broadband personnel and vehicular information requested for the 2nd, 3rd, et cetera, Service Areas as appropriate.

TABLE 5.1.A – CURRENT AND PROJECTED NUMBERS OF AGENCY WIRELESS BROADBAND EQUIPPED OR CAPABLE PERSONNEL AND VEHICLES

	Servic	e Area	#	e Area 2	Service#	e Area 3
	Current # of Users	# Of Users In 10 Years	Current # of Users	# Of Users In 10 Years	Current#of Users	# Of Users In 10 Years
Potential Broadband Wireless Device Users						
O O						
0						
0						
0						
0						
0						
CHP Example:						
 Capitol Protection Personnel 	6	9	7	11		
 Traffic Patrol Personnel, Airborne 					2	3
 Traffic Patrol Personnel, Ground 					16	24
Vehicles						
0						
0						
0						
0						
0						
0						

SURVEY FOR DETERMINING EACH ELIGIBLE AGENCY'S NEED FOR PUBLIC SAFETY FREQUENCIES IN THE 4.9 GHZ BAND DUE JUNE $\mathbf{1}^{\text{ST}}$

		e Area	Service Area				
	#	1	_		#3		
	Current # of Users	# Of Users In 10 Years	Current # of Users	# Of Users In 10 Years	Current # of Users	# Of Users In 10 Years	
Vehicles (continued)							
CHP Example:							
 Capitol Protection B&W sedans 	1	1	1	1			
 Air Ops Helicopter 					1	1	
 Air Ops Fixed Wing Aircraft 					1	1	
 Traffic Patrol – four (or more) wheeled vehicles 					10	15	
o Traffic Patrol Motorcycles					3	4	

		e Area 4	Service#	e Area 5	Service #	
	Current # of Users	# Of Users In 10 Years	Current # of Users	# Of Users In 10 Years	Current# of Users	# Of Users In 10 Years
Potential Broadband Wireless Device Users						
0						
0						
0						
0						
0						
0						
Vehicles						
0						
0						
0						
0						
0						
0						

b) How many <u>wireless broadband equipped or broadband capable</u> devices (e.g., mobile data computers, handheld computers, mobile printers, CAMcorders, et cetera) does your organization currently employ on existing systems; and, how many do you predict your organization will have operational on a future Public Safety/Public Service wireless voice and/or data communications systems within ten years?

Please fill out the tables on the following two pages. Some agencies have one Service Area; however, if your organization is comprised of multiple Service Areas, supply wireless broadband equipped or capable device projections for the 2nd, 3rd, et cetera, Service Areas as appropriate.

TABLE 5.1.B – CURRENT AND PROJECTED NUMBERS OF AGENCY WIRELESS BROADBAND EQUIPPED OR CAPABLE DEVICES

Enter current #'s and projected nu wireless system(s) within th		0	•			
		rice Area #1		ice Area #2	Servi	ce Area #3
Broadband Wireless Device Types	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years
Mobile Data Computers						
0						
Handheld Computers						
0						
Mobile Image Scanners						
Fingerprint						
o Photo						
0						
Radio Frequency ID Tag & Bracelet						
Readers (e.g., real-time inventory						
assessment, patient stats, et cetera)						
Geo-Location Systems (to pinpoint						
resource and personnel						
whereabouts)						
On-board Signaling Systems (to						
adjust traffic light sequence,						
interrogate transportation regarding						
traffic status						
Mobile Printers						
Video Transmission & Recording						
Devices)						
o Robotic					_	
o Airborne						
o Remote fixed						
0						
0						
Mobile/Remote Sensors or Monitors						
o SCADA						
o Biometric						
o Intrusion						
o Perimeter						
0						
0						

TABLE 5.1.B (CONTINUED FROM PREVIOUS PAGE)

Enter current #'s and projected nu						
wireless system(s) within th	e next t	en years fo			vice Area	
	Serv	ice Area	Servi	ice Area	Servi	ce Area
		#4		#5	i	#6
Broadband Wireless Device Types	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years
Mobile Data Computers						
0						
Handheld Computers						
0						
Mobile Image Scanners						
Fingerprint						
o Photo						
0						
Radio Frequency ID Tag & Bracelet						
Readers (e.g., real-time inventory						
assessment, patient stats, et cetera)						
Geo-Location Systems (to pinpoint						
resource and personnel						
whereabouts)						
On-board Signaling Systems (to						
adjust traffic light sequence,						
interrogate transportation regarding						
traffic status						
Mobile Printers						
Video Transmission & Recording						
Devices)						
o Robotic						
 Airborne 						
 Remote fixed 						
0						
0						
Mobile/Remote Sensors or Monitors						
o SCADA						
 Biometric 						
 Intrusion 						
 Perimeter 						
0						
0						

6. Identify the broadband applications your organization envisions deploying in building out future high speed data systems. Include how often you envision the application being used (everyday or occasionally), and the priority (1[highest] through 10 [lowest]) of the application to your organization.

Please fill out the table below. Many organizations have one Service Area; however, if your organization is comprised of multiple Service Areas, provide projections for Service Area #'s 2, 3, ..."n", et cetera, as appropriate.

TABLE 6.1 - PROJECTED ORGANIZATIONAL BROADBAND APPLICATION REQUIREMENTS – Frequency and Priority of Use

Or	ganization's Estimate of 4.9 GHz Applications Use	Need Everyday	Need Infrequently	Priority (1 thru 10)
Se	rvice Area #1 for the following applications:			
a.	Image transfer (e.g., mug shot, finger print, et cetera)			
b.	Real time access to federal, state, and local databases			
c.	Real time video			
d.	Airborne video downlink (requires FCC waiver)			
e.	Client device file download/upload			
f.	On-scene "Situation Awareness" GIS map display (real time overview map showing location of resources and personnel)			
g.	Mobile devices (laptop and handhelds) access to multimedia databases			
h.	Access to Internet resources (satellite imagery, other data etc.)			
i.	Access to building/facility drawings (CAD)			
j.	Access to latest department briefings and crime reports			
k.	Ad-hoc self forming network for sharing of on-scene incident broadband information; i.e., providing incident or event command and control (or C ³ , C ³ I, or C ⁴) ³ capabilities via an Incident Management or Command System [IMS, or ICS]			

³ C³ equates to Command, Control, and Communications Systems; C³I equates to Command, Control, Communications, and Intelligence; C⁴ equates to Command, Control, Communications, and Computing Systems. Note: Command, Control, Communications and Intelligence comprises systems providing capabilities that enable *the military forces of the United States* [substitute public safety agencies] to generate, use, and share the information necessary to survive and succeed on every mission.

SURVEY FOR DETERMINING EACH ELIGIBLE AGENCY'S NEED FOR PUBLIC SAFETY FREQUENCIES IN THE 4.9 GHZ BAND DUE JUNE $\mathbf{1}^{\text{ST}}$

Organization's Estimate of 4.9 GHz Applications Use			
	Need Everyday	Need Infrequently	Priority (1 thru 10)
 Fires, HAZMAT, and multicasualty incidents 			
 Multijurisdiction and multi–agency disaster incidents 			
Wide–area search and rescue missions			
Planned events; e.g., celebrations, parades, concerts			
l. Remote sensor monitoring			
Supervisory Control and Data Acquisition (SCADA)			
Web CAM			
Robotic CAM			
Intrusion Alarms			
System anomalies			
• Biometric monitoring (e.g., from mobile 12-lead EKG units, Firefighter biometric vests, et cetera)			
 Detection of chemical, biological, radiological, and other hazards 			
 Perimeter alarms 			
 Radio frequency identification (RF ID) tags (inventory assessment/control) 			
• RF ID Bracelets (Patient stats)			
m. Voice recognition and activation			
<i>n</i> . Software upgrades or software tech support			
o. Update messaging signs on roads			
p. Emergency Alert of resources available			
q. Emergency medical reporting			
r. Contingency restoration, recovery, and/or integration of fire, police, and ambulance voice communications (via VoIP)			
s. Making use of 4.9 GHz coverage by extending it inside strategic buildings to access external public safety data networks			
t. Other (identify):			
u. Other (identify):			
Repeat for each separate Service Area within which your agency operates (if more than one)			

7. What is your intended system use of these frequencies —a new system, replacement of an existing system, or expansion of an existing system? When do you envision starting and finishing deployment of a 4.9 GHz broadband wireless data system?

Instructions: Please fill out the table below. Most organizations have one Service Area; however, if your organization is comprised of multiple Service Areas, fill out your projected Start and Finish dates under the appropriate column header; i.e., if you are building a new system to accommodate your Service Area, enter your estimated Start and Finish dates under "New System"

TABLE 7.1 – ORGANIZATION'S RADIO SYSTEM DEPLOYMENT PLANS

	New S	System		Existir	ng System	
			Repla	cement	Expa	insion
	Start	Finish	Start	Finish	Start	Finish
Service Area #1						
Service Area #2						
Service Area #3						
Service Area #4						
Service Area #5						
Service Area #6						
Service Area #7						
Service Area #8						
Service Area #9						
Service Area "N"						
Comments (if any):						

SURVEY FOR DETERMINING EACH ELIGIBLE AGENCY'S NEED FOR PUBLIC SAFETY FREQUENCIES IN THE 4.9 GHZ BAND DUE JUNE $\mathbf{1}^{\text{ST}}$

8. List the individual entities that will become bona fide users of your organization's envisioned broadband wireless data system(s). Include any outside agencies that will be part of your system. Note if these users are certain, or just potential users.

TABLE 8. – BONA FIDE USERS OF YOUR ORGANIZATION'S ENVISIONED WIRELESS DATA SYSTEM

	user of your orgo	coming a bona fide unization's Hz Data System(s)
Individual Entities	Certain	Potential
Fyamnle #1	l (continued)	
Utopia Police & Fire	X	
Avalon Police	X	
Heavenly County SO, Fire, and PW		X
Has your organization considered hos other agencies in a multi-jurisdiction		
Response:		

9.

ATTACHMENT II

47 Code of Federal Regulations (CFR) §90.1203 and §90.523

Eligibility For Systems Operating In The 4.9 GHz Frequency Band

47 Code of Federal Regulations (CFR) §90.1203 Eligibility and 47 Code of Federal Regulations (CFR) §90.523 Eligibility

§90.1203 Eligibility. -

- (a) Entities providing public safety services as defined under section 90.523 are eligible to hold a Commission license for systems operating in the 4940–4990 MHz band. All of the requirements and conditions set forth in that section also govern authorizations in the 4940–4990 MHz band.
- (b) 4.9 GHz band licensees may enter into sharing agreements or other arrangements for use of the spectrum with entities that do not meet these eligibility requirements. However, all applications in the band are limited to operations in support of public safety.
- **§90.523 Eligibility**. This section implements the definition of public safety services contained in 47 USC §337(f)(1). The following are eligible to hold Commission authorizations for systems operating in the 764-776 MHz and 794-806 MHz frequency bands:
- (a) State or local government entities. Any territory, possession, state, city, county, town, or similar State or local governmental entity is eligible to hold authorizations in the 764-776 MHz and 794-806 MHz frequency bands.
- (b) Nongovernmental organizations. A nongovernmental organization (NGO) that provides services, the sole or principal purpose of which is to protect the safety of life, health, or property, is eligible to hold an authorization for a system operating in the 764-776 MHz and 794-806 MHz frequency bands for transmission or reception of communications essential to providing such services if (and only for so long as) the NGO applicant/licensee:
- (1) Has the ongoing support (to operate such system) of a state or local governmental entity whose mission is the oversight of or provision of services, the sole or principal purpose of which is to protect the safety of life, health, or property;
- (2) Operates such authorized system solely for transmission of communication essential to providing services the sole or principal purpose of which is to protect the safety of life, health, or property; and
- (3) All applications submitted by NGOs must be accompanied by a new, written certification of support (for the NGO applicant to operate the applied-for system) by the state or local governmental entity referenced in paragraph (b)(1) of this section.
- (c) All NGO authorizations are conditional. NGOs assume all risks associated with operating under conditional authority. Authorizations issued to NGOs to operate systems in the 764-776 MHz and 794-806 MHz frequency bands include the following condition: If at any time the supporting governmental entity (see paragraph (b)(1)) notifies the Commission in writing of such governmental entity's termination of its authorization of a NGO's operation of a system in the 764-776 MHz and 794-806 MHz frequency bands, the NGO's application shall be dismissed automatically or, if authorized by the Commission, the NGO's authorization shall terminate automatically.
- (d) Paragraphs (a) and (b) notwithstanding, no entity is eligible to hold an authorization for a system operating in the 764-776 MHz and 794-806 MHz frequency bands on the basis of services, the sole or principal purpose of which is to protect the safety of life, health or property, that such entity makes commercially available to the public.

Historical Note: Subsection (b) revised by order in Docket No. 96-86, effective November 6, 2000, 65 FR 53641. For Second Memorandum Opinion see 21 CR 868.

ATTACHMENT III

Links to additional 4.9 GHz information

Internet addresses for a few websites providing multiple links to additional 4.9 GHz information:

SITE	INTERNET ADDRESS
APCO	http://www.apcointl.org/frequency/4-9GHz/4-9GHz.htm
Automated	
Frequency	
Coordination	
Region 6	http://www.rgn6rpc.org/4940main.htm
(Northern CA)	
CPRA (Southern	http://www.cpra.org/newscntr.htm
CA)	
PSWN	http://www.pswn.gov/admin/librarydocs12/4_9_Band_Fact_Sheet.doc
TROPOS	http://www.troposnetworks.com/pdf/Spectrum_Whitepaper.pdf
Networks	
Public Safety	http://www.publicsafetycommunications.org/Wi-Fi.php
Communications	
Resource Center	

REGION 6 – 4.9 GHz REGIONAL PLAN EXHIBITS

EXHIBIT C.2.A

Synopsized Survey Results - Summary A : Agency Inputs Regarding Resources and Technologies

Total # of Responses	98			Peak	Shift Perso	nnel			Peal	Shift Vehicle	s							Broa	dband Dev	rices				_					Br	oadband Device	es							
# of Counties with No County/City Responses	31												ile Data	Handh	eia		ige Scanne		Radio ID T		-Location	Sig	-board Inaling							ecording Device					e Sensors			
	Ι_		A SI		B Shift		C Shift	A	Shift	B Shift	C SI	nift Con	puters	Compu	ters Fin	gerprint	Pho	eto E	Bracele	-	systems =	Sy	stems E	Mobile	Printers	Robot	tic E	Airborne	Ren	note fixed	Other	SCA	DA I	Biometric	Intr	rusion	Perim	eter
County	2000 Population	Percent of Total State 2000 Population	Current # of Users	# Of Users In 10 Years	Current # of Users # Of Users In 10	Years Current # of	Users # Of Users In 10	rears Current # of Users	# Of Users In 10 Years	Current # of Users # Of Users In 10 Years	Current # of Users	# Of Users In 10 Years Current #	Projected # in te years	Current #	Projected # in te years	Projected # in te	Current #	Projected # in te years		Projected # in ter years	Current # Projected # in te	Current #	Projected # in te years	Current #	Projected # in te years		Projected # in te years	Current # Projected # in te	years	Current # Projected # in te	Current # Projected # in te years	Current #	Projected # in te years	Current# Projected#in te	years Current #	Projected # in te years	Current #	Projected # in te years
California	33,871,648	100																																				
Alameda County Local, State, & EMS Totals: Local Government	1,443,741	4.262%	903 315	2,700 1,948				72 26			-	- 268 - 268			1,885 - 480 -	409		620 299		5,384 21 1,530 21			965 370		549 400	-	84 15		6 15		-	3	110 -		25 31 50 31			211
State Government Private EMS Providers Alpine County			332 256	439 313		-	 	33:	2 439		-	 	110 78	-	439 - 966 -	110		164 157	- 4	4,071 - 783 -	548 1,044	-	439 157	-	110	-	30 39		2 -	149 -	-	-	75 -		18 - 57 -	37 157	-	22
Local, State, & EMS Totals:	1208	0.004%	76	99				7:	5 99		-		26	-	99 -	25	-	38	-	912 -	124	-	99	-	26	-	8	- :	2 -	34 -	-	-	17 -		5 -	9		6
Local Government State Government Private EMS Providers Amador County			75	98				74	4 98 1 1		-		25	-	98 -	25	-	37	-	911 -	123	- - -	98	-	25	-	7	-	1 -	33 -	-	-	17 -		4 -	8	-	5
Local, State, & EMS Totals: Local Government State Government Private EMS Providers	35,100	0.104%	365 - 358 7	481 - 473 8			 	36:	2 477 - 8 473 4 4				121 - 119 2	-	497 - 473 - 24 -	119 - 119 -	-	182 - 178 4	-	4,402 - 4,382 - 20 -	617 - 591 26	-	477 - 473 4	-	120 - 119 1	-	34 - 33 1	- · ·	4 - - 3 - 1 -	163 - 161 - 2 -			81 - 81 - 		24 - 20 - 4 -	45 - 41 4		26 - 25 1
Butte County Local, State, & EMS Totals: Local Government State Government	203,171	0.600%	250 16 198	327 21 261	20		10 1: 10 1:		6 21	20 25		13 40 13 40 			497 - 100 - 261 -	86 20 66	5	151 30 98	-	2,528 - 2,417 -	533 60 326	-	344 60 261	-	132 60 66		27 3 18	-	4	1 120 - 1 25 - 89 -		-	45 - 45 -	-	34 1 1 11 -	51 5 23		24 5 14
Private EMS Providers Calaveras County Local, State, & EMS Totals:	40,554	0.120%	36 168	45 220				16-	8 23		-		12		136 -	53	-	23	-	111 -		-	23	-	6 55	-			1 -	74 -	-	-	36 -	:	23 -	23		5 12
Local Government State Government Private EMS Providers Colusa County			- 160 8	211 9			 	16	0 211 4 5		-		53	-	211 - 28 -	53	-	- 79 5	- ·	1,953 - 23 -	263 30	+ -	211 5	-	53	-	- 15 2		2 - 1 -	72 -	-	-	36 -	-	9 -	- 18 5	-	11
Local, State, & EMS Totals: Local Government State Government Private EMS Providers	18,804	0.056%	87 - 83	114 - 109			 	- 8	5 112 - 3 109			 	30 - 28		122 109 -	- 28	-	- 41	-	1,019 - 1,008 -	150 - 136	_	112 - 109		29 - 28		9 - 8		2 1 -	38 37 -			19 - 19 -	· -	8 - - 5 -	13 - 10	-	7 - 6
Contra Costa County Local, State, & EMS Totals: Local Government State Government Private EMS Providers	948,816	2.801%	4,555 4,098 288 169	8,724 8,138 380 206		· -		4,070 3,69 28i	7 5,681 8 380		-	- 3,177 - 3,177 	5,549 5,402 95 52	85	2,588 - 1,573 - 380 - 635 -	2,799 2,704 95	-	2,950 2,704 143 103	700	5,587 22 1,550 22 3,522 - 515 -	0 3,789 0 2,627 475	20 20 -	528 45 380 103	17	2,573 2,452 95 26	-	59 7 26 26	2 4	8 15 4 15 3 -		-	5 5	110 - 45 - 65 -	10	19 3 00 3 16 -			175 135 20 20
Del Norte County Local, State, & EMS Totals: Local Government State Government	27,507	0.081%	287	378 - 372				28:	5 375		-		95	-	391 372 -	93	-	143	- 3 -	3,467	485	-	375 - 372	-	94	-	27	- :	3 -	128 -	-	-	64 -		19 -	35	-	20
Private EMS Providers El Dorado County Local, State, & EMS Totals:	156,299	0.461%	5 215	6 281				20	3 3		-		71	-	19 -	- 62	-	3 110	-	15 -	20		3 264	-	1 67	-	1 22	-	1 -	1 -	-	-	42 -		3 -	38	-	17
Local Government State Government Private EMS Providers Fresno County			- 187 28	247 34				18	_		-		62	-	247 - 105 -	62	-	93 17	- 2	2,286 - 85 -	308 114	-	247 17	-	62 5	-	17 5	- :	2 - 1 -	84 -	-	-	42 -		11 -	21	-	13
Local, State, & EMS Totals: Local Government State Government Private EMS Providers	799,407	2.360%	836 - 694	1,090 - 916				76: - 69:	- 4 916		-		273 - 229	-	1,451 - 916 - 535 -	229 - 229	-	431 - 344	- 8	3,931 - 3,497 - 434 -	1,724 - 1,145 579	-	1,003 - 916 87	-	251 - 229		85 - 63		6 5 -	336 - 312 -		-	156 - 156 -	· -	25 38 97	165 - 78	-	- 47
Glenn County Local, State, & EMS Totals: Local Government	26,453	0.078%	93	174 123 -				9			-		32	-	135 -	30	-	47		1,093 -	166	-	120	-	31	-	9	- :	2 -	41 -	-	-	20 -		87 -	13	-	7
State Government Private EMS Providers Humboldt County Local, State, & EMS Totals:	126,518	0.374%	88 5 286	117 6 375				27:	3 3				30 2 94	-	117 - 18 -	- 87	-	44 3 145	-	1,078 - 15 - 3,289 -	146 20 526	-	117 3	-	30 1	-	8 1 28	-	1 -	40 - 1 - 123 -	-	-	20 -		5 - 3 - 29 -	3	-	1
Local Government State Government Private EMS Providers Imperial County	120,010	5.51470	- 263 23	347 28				26:	- 3 347		-		- 87 7	-	347 - 85 -	87	-	- 131 14	-	 3,220 - 69 -	- 434 92		347	-	- 87 4		- 24 4		2 -	119 -		-	60 -	-	- 15 - 14 -	30	-	18
Local, State, & EMS Totals: Local Government State Government Private EMS Providers	142,361	0.420%	525 - 499 26	759 70 658 31	- -	. -	 	51: - 49:	70 9 658			- 6 - 6 		-	759 - 5 - 658 - 96 -	170 5 165	-	268 5 247 16	-	6,184 - 1 - 6,105 - 78 -	5 823	-	674 - 658 16	-	174 5 165 4	-	45	 	5 - - 4 - 1 -	231 - 2 - 224 - 5 -	-		112 - 112 -	· -	43 - - 27 - 16 -	72 - 56 16	-	37 - 34 3
Inyo County Local, State, & EMS Totals: Local Government State Government	17,945	0.053%	219 - 215	288 - 284			 	21'	7 286		-	 	72 - 71	-	297 - 284 -	71	-	109 - 107	-	2,641 - 2,631 -	368 - 355	-	286 - 284	-	72 - 71	-	21 - 20	- :	3 2 -	98 97 -	-	-	49 -	-	14 -	27 - 25	-	16 - 15
Private EMS Providers Kern County Local, State, & EMS Totals:	661,645	1.953%	721	4				66	2 2		-		1 235	-	13 -	199	-	371	-	10 -	13	-	2 868	-	217	-	1	-	1 -	1 -	-	-	136 -		2 -	2 140	-	1 55

Total # of Responses	98	3		Peak	Shift Persor	nnel			Peak	Shift V	ehicles								Broadban	Devices							E	Broadband Dev	vices					
# of Counties with No County/City Responses	31												Mobile	e Data	Handhe	d N	Mobile Ima	ge Scanners	Radio	ID Tag or	Geo-L	ocation	On-board Signaling					Recording Dev					sors or Monito	
	I	<u> </u>	A S	hift	B Shift	С	Shift	A S	Shift	BS	hift C	Shift	Comp	uters	Compute	`	gerprint _	Photo	D Bi	acelet =	Sys	tems _	Systems =	Mobile F	Printers Ro	botic A	Airborne R		Other	_	ADA Bio	Ę	Intrusion _	Perimeter =
County	2000 Population	Percent of Total State 2000 Population	Current # of Users	# Of Users In 10 Years	Current # of Users # Of Users In 10	Years Current # of Users	# Of Users In 10 Years	Current # of Users	# Of Users In 10 Years	Current # of Users	# Of Users In 10 Years Current # of Users	# Of Users In 10 Years	Current #	Projected#in te years	Current #	Projected # in ter years Current #	Projected # in te	Current #	Projected # in te years Current #	Projected # in te years	Current #	Projected # in te years	Current # Projected # in te	years Current #	Projected # in te years Current #	Projected # in te years	Current # Projected # in te years	Current # Projected # in ter years	Current #	Projected # in ten years Current #	Projected # in te years Current #	Projected # in te years	Current # Projected # in te years	Current # Projected # in te years
Local Government State Government			- 603	- 706		-	-	-	- 796	-		-	-	- 199	-	 796 -	- 199	-	 299 -	7,386	-	- 995	 - 79	-					-		 136 -	- 33	 - 68	 - 41
Private EMS Providers			118	144		-	-	59	796	-		-	-	36	-	443 -	-	-	72 -	359	-	479		2 -	18 -	55 - 18 -	5 -	271	-			72	- 72	
Kings County																																		
Local, State, & EMS Totals: Local Government	129,461	0.382%	518	683		-	-	507	669	-		-	-	172	-	741 -	164	-	260 -	6,133	-	911	- 66	9 -	168 -	49 -	5 -	227	-		112 -	- 42	- 71	- 37
State Government			495	654		-	-	495	654	-		-	-	164	-	654 -	164	-	245 -	6,062	-	817	- 65	-	164 -	45 -	4 -	223	-		112 -	27	- 56	- 34
Private EMS Providers Lake County			23	29		-	-	12	15	-		-	-	8	•	87 -	-	-	15 -	71	-	94	- 1	5 -	4 -	4 -	1 -	4	-			15	- 15	- 3
Local, State, & EMS Totals:	58,309	0.172%	156	244		-	-	139	195	-		-	-	81	13	271 -	44	-	73 -	1,660	-	296	- 18	3 -	79 -	14 -	2 -	62	-		30 -	15	- 22	- 11
Local Government State Government			12 133	55 176		-	-	133	12 176			-	-	33 44	13	55 - 176 -	- 44	-		- 1,628	-	33 220		- 6 -	33 - 44 -	 12 -	1 -	- 60	-		30 -	- 0	 - 15	
Private EMS Providers			11	13		-	-	6	7			-	-	44	-	40 -	- 44	-	7 -	32		43		7 -	2 -	2 -	1 -	2	-			7		- 2
Lassen County	20.000	0.10001	205	40:				200	100					400		407			400	4		0.10		10	400	0.5		100			00			25
Local, State, & EMS Totals: Local Government	33,828	0.100%	365 -	494 12		-	-	362	482 4	-		-	-	122 1	-	497 -	119	-	182 -	4,417 -	-	619 1	- 47		120 -	35 - 1 -	4 -	163	-		82 - 1 -	- 24	- 45	- 26
State Government			359	474		-	-	359	474	_		-	-	119	-	474 -	119	-	178 -	4,398	-	593			119 -	33 -	3 -	162	-		81 -	20	- 41	- 25
Private EMS Providers Los Angeles County			6	8		-	-	3	4	-		-	-	2	-	23 -	-	-	4 -	19	-	25	-	4 -	1 -	1 -	1 -	1	-			4	- 4	- 1
Local, State, & EMS Totals:	9,519,338	28.104%	32,456	50,344	- 7	75 -	25	14,310	19,035	_	150 -	50	7,521	20,134	859 2	2,840 -	6,163	- 1	7,692 10	51,711	3,428	37,249	510 18,75	9 513	11,932 6	593	22 97	4 3,206		403 2,121	5,802 90	8,416	186 8,939	6 7,199
Local Government		ļ	28,064 2,705	44,708 3,570	- 7	75 -	25	10,761 2,705	14,432 3,570	-	150 -	50	7,521	18,724		2,900 - 3,570 -	5,270		5,320 10 1,339 -	13,415 33,131	3,428	25,900 4,463	510 14,15 - 3,57		10,780 6 893 -		22 68	4 1,709 1,215	-	403 2,121	5,194 90 608 -	7,237 146	186 7,602	6 6,824
State Government Private EMS Providers			1,687	2,066		-	-	2,705 844		-		-	-	893 517		3,570 - 3,370 -	893		1,033 -	5,165	-	6,886	- 3,57		259 -	243 - 259 -	9 -	282	-			1,033	- 304 - 1,033	- 183 - 192
Madera County	400 400	0.0000/	074	400				200	475					400		544	440		407	4.040		000	47		400	20		404			70	22		07
Local, State, & EMS Totals: Local Government	123,109	0.363%	371	488		-	-	-	475	-		-	-	123	-	544 -	116	-	187 -	4,340	-	666 -	- 47	5 -	120 -	36 -	- 4 -	- 101	-		79 -	-	- 54	- 27
State Government			349	461		-	-	349	461	-		-	-	116	-	461 -	116	-	173 -	4,273	-	576	- 46		116 -	32 -	3 -	157	-		79 -	19	- 40	- 24
Private EMS Providers Marin County			22	27		_	-	11	14	-		-	-	/	-	83 -	-	-	14 -	67	-	90	- 1	4 -	4 -	4 -	1 .	4	-			14	- 14	- 3
Local, State, & EMS Totals:	247,289	0.730%		2,920			-	1,854		-		-	1,322	1,983		2,926 1,250			1,960 -	4,176		812			196 -	48 -		65 291	-	- 12	98 -	65	- 194	
Local Government State Government			1,706 329	2,431 435		-	-	1,503 329	2,153 435	-		-	1,322	1,860 109	1,613	2,325 1,250 435 -	1,810 109		1,770 - 163 -	4,029	-	90 543			80 - 109 -	11 - 30 -	3 -	65 135 148	-	- 12	24 - 74 -	20 18	- 130 - 37	
Private EMS Providers			44	54		-	-	22		-		-	-	14	-	166 -	-	-	27 -	135	-	179		7 -	7 -	7 -	1 -	8	-			27	- 27	
Mariposa County Local, State, & EMS Totals:	17,130	0.051%	151	198		-	-	149	196	_		-	-	50	-	206 -	49	_	75 -	1,808	_	256	- 19	6 -	50 -	15 -	3 -	67	-		33 -	10	- 19	- 11
Local Government	,		-	-		-	-	-	-	-		-	-	-	-		-	-		-	-	-		-				-	-			-		
State Government Private EMS Providers			147	194		-	-	147	194	-		-	-	49 1	-	194 - 12 -	49	-	73 -	1,798 10	-	243	- 19 -	2 -	49 -	14 -	2 -	66	-		33 -	8	- 17	
Mendocino County																																		
Local, State, & EMS Totals: Local Government	86,265	0.255%	289	380		-	-	281	371	-		-	-	96	-	419 -	91	-	146 -	3,389	-	514	- 37	1 -	94 -	28 -	3 -	126	-		62 -	25	- 41	- 21
State Government			273	361		-	-	273	361	-		-	-	91	-	361 -	91	-	136 -	3,342	-	451	- 36	i1 -	91 -	25 -	2 -	123	-		62 -	15	- 31	- 19
Private EMS Providers Merced County			16	19		-	-	8	10	-		-	-	5	-	58 -	-	-	10 -	47	-	63	- 1	0 -	3 -	3 -	1 -	3	-			10	- 10	- 2
Local, State, & EMS Totals:	210,554	0.622%	633	842		-	-	402	759	-		-	46	236	-	690 -	154	1	242 -	3,458	-	1,085	27 53	4 2	153 1	36 -	3	12 253	-	- 12	91 -	208	12 74	- 34
Local Government			327	442		-	-	115				-	46	135	-	195 -	65		86 -	65	1	490		7 2	58 1	5 -		12 125	-	- 12	30 -		12 20	
State Government Private EMS Providers			268 38	354 46			-	268 19		-		-	-	89 12	-	354 - 141 -	- 89	-	133 - 23 -	3,278 115	-	442 153		3 -	89 - 6 -	25 - 6 -	2 -		-		61 -	15 23	- 31 - 23	- 19 - 5
Modoc County		/												•																		_		
Local, State, & EMS Totals: Local Government	9,449	0.028%	84	111		-	-	83	110	-		-	-	- 28	-	115 -	27	-	43 -	1,002	-	142	- 11	0 -			2 -	38	-		19 -	- 7	- 12	- 7
State Government			82	108		-	-	82	108	-		-	-	27	-	108 -	27	-	41 -	996	-	135	- 10	8 -	27 -	8 -	1 -	37	-		19 -	5	- 10	- 6
Private EMS Providers Mono County			2	3		-	-	1	2	-		-	-	1	-	7 -	-	-	2 -	6	-	7	-	2 -	1 -	1 -	1 -	. 1	-			2	- 2	- 1
Local, State, & EMS Totals:	12,853	0.038%	238	313		-	-	237	312	-		-	-	79	-	319 -	78	-	119 -	2,879	-	397	- 31	2 -	79 -	23 -	3 -	107	-		53 -	15	- 29	- 17
Local Government State Government			- 235	- 310		-	-	- 235	310	-		-	-	- 78	-	310 -	- 78	-	 117 -	2,872	-	- 387	31		 79 -	 22 -	2 -	106	-		 53 -	- 13	 - 27	- 16
Private EMS Providers			3	3		-	-	2	2	-		-	-	1	-	9 -	-	-	2 -	7	-	10	- 51	2 -	1 -	1 -	1 -	100	-			2	- 2	- 1
Monterey County Local, State, & EMS Totals:	401,762	1.186%	575	752				F20	708					100		933 -	166		293 -	6,375		1,121	- 70	0	177 -	57 -	5 -	238			113 -	70	- 101	42
Local Government	401,702	1.100 /6	-	-		-	-	-	-	-		-	-	-	-		-	-		-	-	-		-					-			-		
State Government Private EMS Providers	1		503 72	664 88	- 1 -	-	-	503 36	664 44	-		-	-	166 22		664 - 269 -	166	-	249 - 44 -	6,157 218	-	830 291	- 66	4 -	166 - 11 -	46 - 11 -	4 -	226	-		113 -	28 44	- 57 - 44	
Napa County			12	88		-	-	36	44	_			-	22		208 -	_	-		218	-	291	- 4	-	11 -	11 -	1	12	-	-		44	- 44	- 9
Local, State, & EMS Totals:	124,279	0.367%	182	236		-	-	171	223	-		-	-	60	-	293 -	53	-	93 -	2,005	-	351	- 22	3 -	57 -	19 -	3 -	75	-		36 -	23	- 32	- 14
Local Government State Government	1	 	159	209		-	-	159	209	-		+-	-	- 53	-	209 -	- 53	-	79 -	1,937	-	- 261	- 20	9 -	53 -	15 -	2 -	71	-		36 -	9	 - 18	- 11
Private EMS Providers			23	27		-	-	12	14	-		-	-	7	-	84 -	-	-	14 -	68	-	90		4 -	4 -	4 -	1 -	4	-			14	- 14	
Nevada County Local, State, & EMS Totals:	92,033	0.272%	162	211				154	201	_		-	_	53	_	253 -	48	_	82 -	1,816	_	305	- 20	11 -	51 -	16 -	3 -	68	_		33 -	18	- 27	- 12
Local Government	02,000	1.2.270	-	-		-	-	-	-	-		ļ-	-	-	-		-	-		-	-	-		-				-	-			-		
State Government Private EMS Providers	1	-	145 17	191		-	-	145 9	191 10	-		-	-	48 5	-	191 - 62 -	48	-	72 - 10 -	1,766 50	-	238 67	- 19 - 1	0 -	48 -	13 -	2 -	65	-		33 -	8	- 17 - 10	
Orange County			17	20				3	10	_			_	Ü		-			10 -	50		UI		_				3			-	10	10	
														-																				

Total # of Responses	98	3	I	Peak	Shift Person	inel			Peak	Shift Ve	hicles								Broadban	d Devices							Br	roadband Devic	es					
# of Counties with No County/City Responses	31	1											Mobile	e Data	Handl	neld	Mobile Im	age Scanne	ers Radio	D ID Tag o	r Geo-L	ocation	On-boa Signalir			Video Trar	smission & R	ecording Device	es		Mobile & R	emote Sens	sors or Monito	ers
, , , , , , , , , , , , , , , , , , , ,	1	_	A SI	hift	B Shift	С	Shift	AS	Shift	B S	nift C	Shift		outers	Comp		ngerprint	Pho		racelet		stems	System	~	Printers Ro	botic A	rborne Rei	mote fixed	Other	SCA	ADA Bio	metric	Intrusion	Perimeter
County	2000 Population	Percent of Total State 2000 Population	Current # of Users	# Of Users In 10 Years	Current # of Users # Of Users In 10	rears Current # of Users	# Of Users In 10 Years	Current # of Users	# Of Users In 10 Years	Current # of Users	# Of Users In 10 Years Current # of Users	# Of Users In 10 Years	Current#	Projected # in ten years	Current#	Projected # in ten years	Current # Projected # in ten	Current#	Projected # in ten years Current #	Projected # in ten	Current #	Projected # in ten years	Current#	Projected # in ten years Current #	Projected # in ten years Current #	Projected # in ten years	Current # Projected # in ten	Current # Projected # in ten years	Current # Projected # in ten years	Current#	Projected # in ten years Current #	Projected # in ten years	Current # Projected # in ten years	Current # Projected # in ten years
Local, State, & EMS Totals:	2,846,289	8.403%	17,489	20,994		-	-	6,575	8,195	-		-	3,246	4,834		12,750 -	3,58		927 -	9,640	_	13,087		,428 116	529 42		4 39 3	2,511 26		351	899 -	446	7 443	- 182
Local Government State Government			16,418 566	19,629 747		-	-	5,756 566	7,139 747	-		-	3,246	4,492 187	1,416	10,098 - 747 -	3,39		338 - 280 -	1,170 6,925	_	10,095 933		,372 116 747 -	264 42 187 -	97 51 -	4 31 3 5 -	2,172 26	9 2,624	351	772 - 127 -	106 31	7 70	- 85 - 39
Private EMS Providers			505	618		-	-	253	309	-		-	-	155	-	1,905 -	-	- 1	309 -	1,545		2,059		309 -	78 -	78 -	3 -	85 -	-	-		309	- 309	- 58
Placer County Local, State, & EMS Totals:	248,399	0.733%	431	11,191				188	244				71	3,708	150	7,612 -	5:		109 -	2,149		452		244 -	62 -	31 -	7 -	82 -			37 -	36	- 46	17
Local Government	240,398	0.733%	221	10,920		-	-	-	-	-		-	71	3,639	150	7,012 -	-	-		2,148	-	- 452	-			9 -	4 -		-	-		-	- 40	- 17
State Government			165	217		-	-	165	217	-		-	-	55	-	217 -	5	5 -	82 -	2,014		272		217 -	55 -	15 -	2 -	74 -	-	-	37 -	9	- 19	- 12
Private EMS Providers Plumas County			45	54		-	-	23	27			-	-	14	-	167 -	-	-	27 -	135	-	180	-	27 -	7 -	7 -	1 -	8 -	-			27	- 27	- 5
Local, State, & EMS Totals:	20,824	0.061%	100	132		-	-	98	130	-		-	-	34	-	141 -	3:	2 -	51 -	1,183	-	174	-	130 -	33 -	10 -	2 -	44 -	-	-	22 -	9	- 14	- 8
Local Government State Government			- 96	127		-	-	- 06	127	-		-	-	- 32	-	 127 -	- 3:	-	 48 -	1,171	-	- 158	-	 127 -	32 -		1 -	43 -	-	-		- 6	 - 11	7
Private EMS Providers			4	5		+-	 -	2	3	-		T -	-	2	-	14 -	-	-	3 -	12		16	-	3 -	1 -	1 -	1 -	1 -	-	-		3	- 3	- 1
Riverside County	1.545.007	7 4 50001	1 707	0.750	25 ^	0 05	- 40	E 057	0.504	25	60 05	40	0.40	2.044	20	4.246	4.05		1.510	44.747		2.070		051	1.075	160	1 10	640			700	200	200	040
Local, State, & EMS Totals: Local Government	1,545,387	4.562%	1,727 328	2,750 929		i0 25		5,957 4,695	8,581 6,928	35 35	60 25 60 25		348 348	2,011 1,555	30 30	4,246 - 1,727 -	1,25		1,519 - 794 -	14,717 102			- 1	,851 - 198 -	1,275 - 861 -	160 17	1 19 - 1 9 -	612 - 61 -	-	-	790 - 537 -	380 151	- 390 - 95	- 218 - 110
State Government			1,125	1,485			-	1,125	1,485	-		-	-	372	-	1,485 -	37		557 -	13,776	-	1,856	- 1	,485 -	372 -	101 -	8 -	505 -	-	-	253 -	61	- 127	- 76
Private EMS Providers Sacramento County			274	336		-	-	137	168	-		Ė	-	84	-	1,034 -	-	1	168 -	839	-	1,118	-	168 -	42 -	42 -	2 -	46 -	-	-		168	- 168	- 32
Local, State, & EMS Totals:	1,223,499	3.612%		3,145		-	-	2,232	2,963	-		-	861	1,846	6	3,531 -	1,22		1,596 -	17,066				,424 2	567 2	159	4 22 -	642 -	9	311	680 -	205	- 284	1 118
Local Government State Government		-	855 1,337	1,114 1,765		-	-	786 1.337	1,065 1,765	-		-	861	1,337 442	6	947 - 1,765 -	78 44		801 - 662 -	16,372		1,252 2,206		526 2 ,765 -	91 2 442 -	5 120 -	4 10 - 10 -	5 - 600 -	9	311	380 - 300 -	- 72	- 1 - 150	1 3
Private EMS Providers			217	266		-	-	109	1,703	-		-	-	67	-	819 -	-	-	133 -	664		885	- '	133 -	34 -	34 -	2 -	37 -	-	-		133	- 133	- 25
San Benito County																	_									10								
Local, State, & EMS Totals: Local Government	53,234	0.157%	164	- 215		-	-	159	209	-		-	-	-	-	239 -	- 5	-		1,907	-	292	-	209 -			3 -		-	-	35 -	-	- 24	- 13
State Government			154	203		-	-	154	203	-		-	-	51	-	203 -	5	1 -	76 -	1,878		253	-	203 -	51 -	14 -	2 -	69 -	-	-	35 -	9	- 18	- 11
Private EMS Providers San Bernardino County			10	12		-	-	5	6	-		-	-	3	-	36 -	-		6 -	29	-	39	-	6 -	2 -	2 -	1 -	2 -	-			6	- 6	- 2
Local, State, & EMS Totals:	1,709,434	5.047%	1,801	2,445		-	-	1,543	2,030	-		-	377	1,012	68		2 45		835 -	16,049	_		5 1	,862 3	531 1	168	2 22 -	627 -	108	-	295 -	281	- 341	- 139
Local Government State Government			263 1,235	1,630		-	-	156 1,235	214 1,630	-		-	377	511 408	- 68	113 1 1,630 -	40		38 - 611 -	15,121	38	241	5 - 1	.630 -	76 1 408 -	10 111 -	2 11 -	21 - 555 -	108	-	17 - 278 -	28 67	- 16 - 139	- 20 - 84
Private EMS Providers			303	371		-	-	152	186	-		-	-	93	-	1,144 -	-	- 1	186 -	928		1,237	-	186 -	47 -	47 -	2 -	51 -	-	-		186	- 186	- 35
San Diego County Local, State, & EMS Totals:	2,813,833	8.307%	3,142	5,063		-	-	3,193	5,200	-		-	1,100	3,213	2,400	5,910 -	1,16) -	1,640 -	14,494	775	6,782	- 1	,713 -	1,337 3	182	5 21	5 684 -	-	25	344 -	368	- 440	- 154
Local Government			1,585	3,055		-	-	1,885	3,497	-		-	1,100	2,710	2,400	2,630 -	81) -	810 -	10	775	3,000	-	10 -	910 3	10	5 10	5 125 -	-	25	106 -	5	- 15	- 25
State Government Private EMS Providers	1		1,058 499	1,397		-	+	1,058 250	1,397 306	-		-	-	350 153	-	1,397 - 1.883 -	35) -	524 - 306 -	12,957 1,527		1,746 2.036		,397 - 306 -	350 - 77 -	95 - 77 -	8 -	475 - 84 -	-	-	238 -	57 306	- 119 - 306	- 72 - 57
San Francisco County			400	011				200	000					100		1,000			000	1,027		2,000		000		- 77		04				000	000	01
Local, State, & EMS Totals: Local Government	776,733	3 2.293%	664 230	2,195 1,635		-	-	880 515	2,321 1,845	-		-	5	541 400	20	1,311 - 400 -	500 410		642 700 410 700			3,200 2,150	-	476 5	175 - 55 -	99 - 50 -	4 1	5 856 - 5 700 -	-	3	97 - 30 -	101	3 204 3 85	3 186 3 150
State Government			296	391		-	-	296	391	-		-	-	98	-	391 -	9:		147 -	3,623		488	-	391 -	98 -	27 -	3 -	133 -	-	-	67 -	16	- 34	- 20
Private EMS Providers			138	169		-	-	69	85	-		-	-	43		520 -	-	-	85 -	422		562	-	85 -	22 -	22 -	1 -	23 -	-	-		85	- 85	- 16
San Joaquin County Local, State, & EMS Totals:	563,598	3 1.664%	816	1,172		-	-	908	1,222	-		-	162	529	23	1,379	2 45	3 16	486 -	8,601	153	1,862	4 1	,163 7	314 1	88 -	7	2 360 -	-	20	202 -	119	2 168	6 98
Local Government			41	158		-	-	183				-	162	275	23	1.0	2 23		90 -	30				210 7	75 1	11 -		2 40 -	-	20	50 -	20	2 30	6 40
State Government Private EMS Providers	1	+	675 100	891 123		-	-	675 50				-	-	223 31	-	891 - 378 -	22:		334 - 62 -	8,265 306		1,114 408		891 - 62 -	223 - 16 -	61 - 16 -	5 -	303 - 17 -	-	-	152 -	37 62	- 76 - 62	
San Luis Obispo County														ű.																				.=
Local, State, & EMS Totals: Local Government	246,681	0.728%	564	740		-	-	542	713	-		-	-	186	-	852 -	17:	2 -	285 -	6,500		1,037	-	713 -	179 -	54 -	5 -	242 -	-	-	117 -	55	- 86	- 40
State Government			520	686				520	686	-		Ŀ	-	172	-	686 -	17	2 -	258 -	6,366		858		686 -	172 -	47 -	4 -	234 -	-	-	117 -	28	- 59	- 35
Private EMS Providers San Mateo County			44	54		-		22	27	-	- -	-	-	14	-	166 -	-	-	27 -	134	-	179	-	27 -	7 -	7 -	1 -	8 -	-	-		27	- 27	- 5
Local, State, & EMS Totals:	707,161	1 2.088%	728	2,236		-	-	421	1,665	-		-	121	528	35	1,137 -	23	2 -	360 700	5,744	-	1,457	-	520 6	164 -	50 -	4 1	9 875 -	-	3	100 -	104	3 212	3 186
Local Government			293	1,674		-	-	49	1,180			-	121	387	35	255 -	13) -	130 700	1,575	j -	435	-	35 6	42 -	2 -	- 1	9 715 -	-	3	30 -	10	3 100	3 150
State Government Private EMS Providers	1	+	309 126	408 154		-	-	309 63				-	-	102 39	-	408 - 474 -	10:		153 - 77 -	3,785		510 512		408 <i>-</i> 77 <i>-</i>	102 - 20 -	28 - 20 -	3 -	139 -	-	-	70 -	17 77	- 35 - 77	
Santa Barbara County																																		
Local, State, & EMS Totals: Local Government	399,347	7 1.179%	322 25	444 59		-	-	284 22				-	-	107 10	-	581 - 15 -	8		166 - 10 -	3,025	_	761 100		364 - 22 -	91 -	33 -	4 -	139 - 25 -	-	-	53 - 2 -	63	- 85 - 15	
State Government			226	298			-	226				-	-	75	-	298 -	7:		112 -	2,758	-	372	-	298 -	75 -	21 -	2 -	102 -	-	-	51 -	13	- 26	- 16
Private EMS Providers Santa Clara County			71	87		-	-	36	44	- 1		-	-	22	-	268 -	-	-	44 -	217	-	289	-	44 -	11 -	11 -	1 -	12 -	-	-		44	- 44	- 9
Local, State, & EMS Totals:	1,682,585	5 4.968%	1,299	7,207		-	-	1,075	5,807	-		-	1,048	3,396	120	6,792 -	2,04	3 10	532 700	7,292	325	6,818	415 1	,238 205	3,307 34	1,057	2 14 2	895 30	00 3,000	3	3,320 -	705	3 1,868	13 301
Local Government			601	6,315		-	-	526	5,098	-	- -	-	1,048	3,172	120	5,140 -	1,91	1 10	151 700	1,500	325	4,942	415	529 205	3,129 34	975	2 9 2	666 30	3,000	3	3,230 -	500	3 1,640	13 240
State Government Private EMS Providers	1	+	399 299	526 366		-	-	399 150		-		-	-	132 92	-	526 - 1,126 -	13:		198 - 183 -	4,879 913		658 1,218		526 - 183 -	132 - 46 -	36 - 46 -	3 -	179 - 50 -	-	-	90 -	22 183	- 45 - 183	
Santa Cruz County																																		
Local, State, & EMS Totals: Local Government	255,602	0.755%	537 256	876 509		-	+ -	485 227	901 562	- 1		-	70 70	590 498	119 119	1,731 - 1,248 -	18		252 - 107 -	3,238		1,111 538		632 10 293 10	217 - 132 -	33 -			20 158 20 158	-	198 - 145 -	180 139	- 155 - 100	
State Government			235	311		<u> </u>	-	235	311	-		-	-	78	-	311 -	7		117 -	2,879	-	388	-	311 -	78 -	22 -	2 -	106 -		-	53 -	13	- 27	- 16
Private EMS Providers			46	56		-	-	23	28	-		-	- 1	14	-	172 -	-	-	28 -	139	-	185	-	28 -	7 -	7 -	1 -	8 -	-	-		28	- 28	- 6

Total # of Responses	98	3		Peak	Shift Perso	nnel			Peak	Shift Vehicle	s						Broadb	and Devices									В	roadband Device	es						
# of Counties with No County/City Responses	31	1											le Data	Handheld	Mobile I	mage \$	Scanners	dio ID Tag or	Geo-Locat		On-board Signaling							Recording Device				Remote Sense	ors or Mon		
		1	A S	Shift	B Shift	. (C Shift	AS	Shift	B Shift	C Shif	ft Com	puters =	Computers	Fingerprint	1	Photo	Bracelet	Systems	<u> </u>	Systems	Mobi	ile Printers	Rob		Airborne	e Re	mote fixed	Other	SCADA	A Bio	ometric	Intrusion	Peri	meter
County	2000 Population	Percent of Total State 2000 Population	Current # of Users	# Of Users In 10 Years	Current # of Users # Of Users In 10	Years Current # of	Users # Of Users In 10 Years	Current # of Users	# Of Users In 10 Years	Current # of Users # Of Users In 10 Years	Current # of Users # Of Users In 10	Years Current #	Projected#in te years	Current# Projected# in ten years	Current # Projected # in te	years	Current # Projected # in te years	Current # Projected # in te years	Current #	Projected # in te years	Current# Projected#in ter		Projected # in ten	Current #	Projected # in ten years	Current # Projected # in te		Current # Projected # in te years	current # Projected # in te years	Current #	Projected # in te years Current #	Projected # in te years	Current # Projected # in te	years Current #	Projected # in te years
Shasta County	400.050	0.4000/	075	400				204	475				404	- 567	- 1	45	400	4.000		000		75	400		07			404			70	0.7		7	200
Local, State, & EMS Totals: Local Government	163,256	0.482%	375	493		-	-	-	475		-		124	- 507	- 1		- 190 - 	4,323	-	690 -	- 4		120	-	-		4 -	161 -	-	-	78 -		-	-	- 28
State Government			346	457		-	-	346	457		-		115	- 457	- 1	15	- 172 -	4,234	-	571 -	4		115	j -	32	-	3 -	156 -	-	-	78 -	19 -	3!	9 -	24
Private EMS Providers Sierra County			29	36		_	-	15	18		-		9	- 110			- 18 -	89	-	119 -		18 -	5	-	5	-	1 -	5 -	-	-		18 -	1	3 -	4
Local, State, & EMS Totals: Local Government	3,555	0.010%	67	87			-	67	87		-		23	- 89	-	22	- 34 -	800	-	111 -		87 -	23	-	7	-	2 -	31 -	-	-	15 -	5 -		9 -	6
State Government			- 66	- 86		-	-	- 66	86		-		22	- 86		22	- 33 -	798	-	108 -	-	86 -	22	2 -	- 6		1 -	30 -	-	-	15 -	4 -	-	3 -	5
Private EMS Providers Siskiyou County			1	1			-	1	1		-		1	- 3			- 1 -	2	-	3 -		1 -	1	-	1	-	1 -	1 -	•	-		1 -		1 -	1
Local, State, & EMS Totals:	44,301	0.131%	195	257		-	-	191	252		-		65	- 277	-	62	- 98 -	2,314	-	342 -	2	252 -	64	-	19	-	3 -	86 -	-	-	42 -	16 -	2	3 -	14
Local Government State Government			- 187	- 247		-	-	- 187	247				- 62	247		62	 - 93 -	2,289	-	309 -	-		- 62	 - 	- 17	- -	2 .		-		 42 -		- 2	- 1 -	- 13
Private EMS Providers			8	10				4	5		-		3	- 30	- -		- 5 -	25	-	33 -		5 -	2	-	2	-	1 -	2 -	-	-		5 -		 5 -	1
Solano County Local, State, & EMS Totals:	394,542	2 1.165%	1,120	3,458			-	1,031	2,451		-	- 386	949	41 1,254	12 5	i93	12 724	26 7,017	_ 1	,769 7	74 1,2	98 4	643	3 -	211	_	10	8 571 :	2 159	120	720 -	687	2 70	3 -	644
Local Government	001,012		515	2,667		-	-	461	1,703		-	- 386	750	41 285	12 4	16	12 416	26 260		601 7	74 5	550 4	455	j -	152		5	8 319	2 159	120	600 -	615	2 60		600
State Government Private EMS Providers	1		535 70	705 86			-	535 35			-		177 22	- 705 - 264	- 1	77	- 265 - - 43 -	6,542 215	-	882 - 286 -	_	705 - 43 -	177		48 11	-	4 -	240 -	-	-	120 -	29 - 43 -	4:	_	36 8
Sonoma County																																			
Local, State, & EMS Totals: Local Government	458,614	1.354%	755 450	1,244 850		-	-	714 450			-	- 500 - 500	1,099	- 951 - 350	- 1,0 - 1,0	074	- 1,160 - - 1,000 -	3,170 200		,699 -		94 -	1,087 1,000		43 10		23 -	414 - 300 -	-	-	60 - 10 -	72 - 10 -	17:		125 100
State Government			223	294		-	-	223	294		-		74	- 294		74	- 110 -	2,721	-	367 -		94 -	74		20		2 -	100 -	-	-	50 -	12 -	2		15
Private EMS Providers Stanislaus County			82	100			-	41	50		-		25	- 307			- 50 -	249	-	332 -		50 -	13	-	13	-	1 -	14 -	-	-		50 -	5) -	10
Local, State, & EMS Totals:	446,997	7 1.320%	262	337	- -	-	-	222	289		-		85	- 540	-	60	- 139 -	2,463	-	624 -	2	.89 -	73	-	30	-	3 -	96 -	-	-	41 -	59 -	7) -	22
Local Government State Government			182	240		-	-	182	240		-		60	- 240	-	60	- 90 -	2,220	-	300 -	2	240 -	60	-	17	-	2 -	82 -	-	-	41 -	10 -	2	1 -	13
Private EMS Providers Sutter County			80	97		-	-	40	49		-		25	- 300		_	- 49 -	243	-	324 -		49 -	13	-	13	-	1 -	14 -		-		49 -	4	9 -	9
Local, State, & EMS Totals:	78,930	0.233%	136	179			-	129	170		-		46	- 214	-	41	- 70 -	1,529	-	259 -	1	70 -	44	-	14	-	2 -	58 -	-	-	28 -	16 -	2:	3 -	11
Local Government State Government	1	1	122	- 161		-	-	122	- 161		-		- 41	 - 161		41	 - 61 -	1.486	-	201 -	- 1	- 61 -	- 41	-	- 11		1 -	 55 -	-	-	 28 -	7 -	- 1	- 1 -	- 9
Private EMS Providers			14	18		-	-	7	9		-		5	- 53			- 9 -	43	-	58 -		9 -	3	-	3	-	1 -	3 -	-	-		9 -		9 -	2
Tehama County Local, State, & EMS Totals:	56,039	0.165%	285	377			-	229	320		-	- 22	103	5 320	-	67	- 106 -	2,413	-	363 -	2	264 -	70) -	21	-	4 -	90 -	-	1	46 -	19 -	3) -	17
Local Government			80	107		-	-	29	56		-	- 22	34	5 25		2	- 2 -	1	-	1 -	-			-	1		1 -		-	1	2 -	1 -		1 -	1
State Government Private EMS Providers	1		195 10	257 13		-	-	195 5	257 7		-		65 4	- 257 - 38		65	- 97 - - 7 -	2,381	-	321 - 41 -	2	257 - 7 -	65	· - ! -	18 2	-	2 -	88 -	-	-		11 - 7 -	2:	7 -	14
Trinity County	40.000	0.0000/	444	450				440	440				20	450		0.7	57	4.004		400		49 -	38		44			54			05			-	
Local, State, & EMS Totals: Local Government	13,022	2 0.038%	114	150		-	-	113	149		-		- 38	- 156 		37	- 57 -	1,364	-	193 -	-	49 -	-	-	- 11		2 -	51 -	-	-	25 -	- 8 -	-	5 -	-
State Government Private EMS Providers			111	147 3		-	-	111	147		-		37	- 147 - 9	-	37	- 55 - - 2 -	1,356	-	183 - 10 -	1	47 -	37		10	-	1 -	50 -	-	-	25 -	6 -	1:		8
Tulare County			3			Ė	_				-	-	1				_	0							-	-		1 -	-	-					'
Local, State, & EMS Totals: Local Government	368,02	1 1.087%	391	712 203		-	-	383 25			-	- 86 - 86	373 245	- 791 - 115		18 10	- 211 - - 10 -	4,280 100		903 -	_	663 - 94 -	148 30		44		8 -	217 - 60 -	-		1,828 - 1,755 -	68 - 10 -	27		130 100
State Government	1		325	429		-	-	325	429		-		108	- 429	- 1	08	- 161 -	3,980	-	536 -	4	29 -	108	-	30	-	3 -	146 -	-	- '	73 -	18 -	3	7 -	22
Private EMS Providers Tuolumne County			66	80			-	33	40	- -	-		20	- 247			- 40 -	200	-	267 -		40 -	10	-	10	-	1 -	11 -	-	-		40 -	41) -	8
Local, State, & EMS Totals:	54,50	0.161%		450		-	-	258			-		117	- 430		98	- 211 -	3,239		706 -	_	374 -	186		26		3 -	146 -	- 1	-	77 -	32 -	3:	5 -	19
Local Government State Government	1		253	105 333		-	-	253	105 333		-		30 84	- 60 - 333		14 84	- 80 - - 125 -	120 3,089		250 - 416 -		35 - 333 -	100 84		23		2 -	30 - 114 -	-	-	20 - 57 -	12 - 14 -	- 2	- 9 -	- 17
Private EMS Providers			10			-	-	5			-		3			_	- 6 -	30	-	40 -	_	6 -		! -	2		1 -	2 -	- 1	-		6 -		3 -	2
Ventura County Local, State, & EMS Totals:	753,197	7 2.224%	755	983		-	-	688	901		-		246	- 1,323	- 2	205	- 390 -	8,008	- 1	,569 -	9	901 -	226	-	77	-	6 -	302 -	-	-	140 -	116 -	15:	2 -	58
Local Government			- 604	- 819		-	-	- 004	- 819		-		-	 - 819	2		 - 308 -	7 500	-		-		205	-	- 56				-	-	 140 -	34	-	-	-
State Government Private EMS Providers			621 134	819 164		-	<u> </u>	621			<u> </u>		205 41	- 819 - 504	- 2		- 308 - - 82 -	7,599 409		,024 - 545 -	8	82 -	205	-	56 21	-	1 -	279 - 23 -	-			82 -	8:	2 -	16
Yolo County Local, State, & EMS Totals:	168.660	0.498%	169	221				154	203				56	- 297		46	- 88 -	1,792		351 -	2	203	51		18		2	68 -			32 -	27 -	9	, _ l	14
Local Government	100,000	0.490%	-	-		1	-	-	-		-		-				- 00 -	-	-		-		-	-	-				-	-			-	-	- 14
State Government Private EMS Providers	1		139 30	184 37		-	-	139 15	184 19				46 10	- 184 - 113	-	46	- 69 - - 19 -	1,700 92		229 - 122 -		84 - 19 -	46	i -	13 5	-	1 -	63 -	-	-	32 -	8 -	10	6 - 9 -	10
Yuba County																									J										7
Local, State, & EMS Totals: Local Government	60,219	0.178%	236 132	614 477			-	120 21			-	- 42 - 42	130 95	- 214 - 50		57 26	- 79 - - 26 -	1,218 50		516 - 319 -		235 - 05 -	113		15 4		2	5 64 1		-	23 -	15 -		3 - 5 -	11
State Government	1		93	123		-	-	93	123		-		31	- 123	-	31	- 46 -	1,135	-	153 -		23 -	31	-	9	-	1 -	42 -	-	-	21 -	5 -	1	1 -	7
Private EMS Providers			11	14	- -	<u> </u>	-	6	7	- -	<u> </u>		4	- 41			- 7 -	33	-	44 -		7 -	2	2 -	2	-	1 -	2 -	-	-		7 -		7 -	2

REGION 6 – 4.9 GHz REGIONAL PLAN EXHIBITS

EXHIBIT C.2.B

Synopsized Survey Results - Summary B : Agency Inputs Regarding Applications and their Priorities

	Π		0		nap			(Or pur				ork for sharing of o	1-	I. Remo	ote sensor	monitoring				I. Re	emote sensor	r monitorir	ng		<u>u</u>	.	J/or	v.				Oth	er applicat	ations lister	d by respo	onding age	encies			
REQUIREMENT (Note: If no response was received from a County or any of its Cities, it is hidden from view [not printed])	APPLICATION: a. image transfer (e.g., mug shot, finger print, et cetera)	b. Real time access to federal, state, and local databases	Real time video Airborne video downlink (requires FOC waiver)	e. Client device file download/upload	f. On-scene "Situation Awareness" GIS display (real time overview map showing location of resources and personnel)	g. Mobile devices (laptop and handhelds access to multimedia databases	h. Access to Internet resources (satellite imagery, other data etc.)	Access to building/facility drawings (C. Access to latest department briefings in crime pendits.	f forming networks	o Fires, HAZMAT, and multicasualty incidents	o Multijurisdiction and multi-agency gidisaster incidents	o Wide-area search and rescue missions of Panned events; e.g., celebrations, parades, concerts.	I. Remote sensor monitoring (general)	o Supervisory Control and Data Acquisition (SCADA)	o Web CAM o Robotic CAM	o Intrusion Alarms	o System anomalies	o Biometric monitoring (e.g., from mobile 12-lead EKG units, Firefighter himmetric vests, of celeral	onments years, acceeding of Detection of chemical, biological, radiological, and other hazards	o Perimeter alams	o Radio frequency identification (RF ID) tags (inventory assessment/control)	o RF ID Bracelets (Patient stats)	m. Voice recognition and activation	n. Software upgrades or software tech support	Update messaging signs on roads Description of the sources available. Emergency Alert of resources available.	nergency medi	r. Contingency restoration, recovery, and integration of fire, police, and ambulance	voice communications (via VoIP) s. Making use of 4.9 GHz coverage by extending it inside strategic buildings to access external public safety data netwo	t. Other (identify): Thermal Imager (CDF/Merced Co Fire)	u. Other (identify): Diff GPS Corrections (City of LA)	v. Other (identify): Interoperable database with City/Schools/Emer Services. (Elk Grove CSD Fire)	identify): Community remote control for EOC ; CSD Fire)	x. Other (identify): Bomb Disposal Robots (Sac Co SRRCS)	y. Other (identify): Instant Messaging (Sac Co SRRCS)	z. Other (identify): Remote site WAN connectivity (CDF)	aa. Other (identify); Building-to-building connectivity (CDF)	ab. Other (identify): Point-to-point Microwave (NCFPD SDCO)	ac. Other (identify): Video Teleconferencing (NCFPD SDCO)	ad. Other (identify): IP Telephone Interconnect (Santa Clara County (SCL)	ae. Other (identify): Fire Alarms (Santa Clara County SCL)
CALIFORNIA TOTALS																																								=
Total Votes for "Need Everyday" Total Votes for "Need Infrequently"	13	84	50 12 44 60	81	75	78 17	34	47 7	9 8	55	11 79	9 76	33	5 43	40	61 3	30 3 39 4	14 4	11 34 11 51	46 38	38	40	2 32 0 43	44	57 57	55	42 39	57 6 57 2	4 2 2 0) (1 0) 1	1	0	0		0 0	0	0	1 0
Total # of "Priority" responders	82	83	83 66 5.4 6.8	86	82	88	85	86 8	33 24 7 2.5	77	79	74	78 1°	1 73	72	69 7 5.7 4	73 7	'1 6	66 72	73 4 4	64 5.1	54	4 67	77 4 4	65	72 4.2 3	69	74 7	5 2	2 1	1	1	1	1	0) (0	0	1	1
Averaged Priority (1 thru 10) Alameda County	3.7	2.6	5.4 6.8	3.8	3.4	3.3	4.7	4.2 3	.7 2.5	2.5	3.1	4.4 2	.6 6.	1 4.7	5.5	5.7 4	.5 4.	.7 4	.8 3.3	4.4	5.1	5.8	5.0	4.4	6.0	4.2	5.8	3.5	4 1.0	10.0	1.0	1.0	2.0	7.0	0.0	0.0	0.0	0.0	5.0	1.0
Total Votes for "Need Everyday"	6	7	3 0	7	6	5	5	7	6 1	2	0	0	1 (0 3	6	2	4	4	5 4	4	2	2	2 4	5	1	2	4	4	6 0) (C	0	0	0	0		0	0	0	0
Total # of "Priority" responders	6	7	5 4	7	7 7	7	6	7	6 1	6	6	5	5 (0 5	6	5	5	5	5 5	5	5	4	4 5	6	5	5	6	5	5 0) (C	0	0	0	0		0	0	0	0
Averaged Priority (1 thru 10) Butte County	3.5	1.4	5.6 7.5	3.7	3.4	2.4	4.0	4.0 3	.2 1.0	2.8	4.8	5.6	.2 0.0	0 4.8	5.0	5.6 4	.0 4.	.2 5	.8 3.2	3.6	7.4	8.5	5 5.0	3.3	4.8	4.2 5	5.0	2.0 2.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Votes for "Need Everyday"	1	1	1 0	1	1	1	1	1	1 0	0	0	0	0 (0 0	1	1	1	1	0 0	1	0	C	0 1	1	1	0	0	1	1 0) (C	0	0	0	0) (0	0	0	0
Total Votes for "Need Infrequently" Total # of "Priority" responders	1	1	1 1	1	1 1	1	1	1	1 0	1	1	1	1 (0 0	1	1	1	1	1 1	1	1	1	1 1	1	1	1	0	1	0 1 0	0	0	0	0	0	0		0	0	0	0
Averaged Priority (1 thru 10) Contra Costa County	7.0	10.0	4.0 2.0	10.0	8.0	10.0	5.0	5.0 9	.0 0.0	5.0	6.0	7.0	.0 0.0	0.0	7.0	5.0 5	.0 5.	.0 4	.0 4.0	4.0	4.0	4.0	5.0	9.0	5.0	5.0	0.0	7.0 9.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Votes for "Need Everyday"	4	4	3 0	4	3	3	4	2	4 0	1	1	1	3 (0 2	2	1	2	1	1 1	1	1	C	0 1	3	1	3	1	2	4 0	0	C	0	0	0	0	(0	0	0	0
Total Votes for "Need Infrequently" Total # of "Priority" responders	1	4	1 2 2 4	4	1 3	4	4	4	4 0	4	4	4	4 (0 4	4	4	4	4	3 4	4	4	1 1	1 3 1 4	4	2	4	4	4	0 4 0				0	0	0		0	0	0	0
Averaged Priority (1 thru 10) Imperial County	5.0	3.3	5.5 4.3	1.5	2.3	3.0	2.8	4.8 4	.5 0.0	1.5	1.8	4.3	.8 0.0	3.8	4.0	3.8 3	.8 3.	.3 5	.3 2.5	2.8	4.5	10.0	5.5	3.8	3.5	2.5 2	2.8	1.3 2.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Votes for "Need Everyday"	1	1	0 0	1	1	1	1	0	1 0	1	0	0	0 (0 1	0	0	1	1	1 0	1	0	C	0 0	0	1	0	1	0	0 0) C	C	0	0	0	0	(0	0	0	0
Total Votes for "Need Infrequently" Total # of "Priority" responders	1	1	1 1	1	0 1	1	1	1	1 1	1	1	1	1 (0 0	1	1	1	1	1 1	1	1	1	1 1 1 1	1	1	1	1	1	1 0		C		0 0	0	0		0	0	0	0
Averaged Priority (1 thru 10) Lake County	5.0	2.0	7.0 5.0	3.0	2.0	1.0	3.0	4.0 4	.0 5.0	2.0	3.0	3.0	.0 0.0	5.0	7.0	4.0 3	.0 3.	.0 3	.0 3.0	4.0	4.0	4.0	5.0	5.0	4.0	4.0	3.0	3.0 3.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Votes for "Need Everyday"	(1	0 0	1	0	1	0	1	1 0	0	0	0	0 (0 0	0	0	0	0	0 0	0	0	C	0 0	0	0	0	0	0	0 0	0 0	C	0	0	0	0	0	0	0	0	0
Total Votes for "Need Infrequently" Total # of "Priority" responders	1	1	1 1	1	1 1	1	1	0 1	1 0	0	0	0	0 (0 0	0	0	0	0	0 0	0	0	0	0 0	0	0	0	0	0	0 0		C		0	0 0	0		0	0	0	0
Averaged Priority (1 thru 10) Lassen County	7.0	1.0	4.0 9.0	3.0	8.0	2.0	10.0	5.0 6	.0 0.0	0.0	0.0	0.0	.0 0.0	0.0	0.0	0.0	.0 0.	.0 0.	.0 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Votes for "Need Everyday"	(0	1 0	0	0	1	0	0	0 0	0	0	0	0	1 1	1	0	1	0	0 0	1	0	C	0 0	0	0	0	0	0	0 0) (C	0	0	0	0) (0	0	0	0
Total Votes for "Need Infrequently" Total # of "Priority" responders	(0	0 0 1 0	0	0 0	1	0	0	0 0	0	1	1	0 (0 0	1	0	1	0	0 0	<u>0</u> 1	0	C	0 0	0	0	0	0	0	0 0) <u>C</u>	C	0 0	0 0	0	0		0	0	0	0
Averaged Priority (1 thru 10)	0.0	0.0	5.0 0.0	0.0	0.0	5.0	0.0	0.0	.0 0.0	0.0	5.0	5.0	.0 2.0	2.0	1.0	0.0 1	.0 0.	.0 0.	.0 0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Los Angeles County Total Votes for "Need Everyday"	8	10	8 4	10	10	11	6	5 1	1 1	6	2	3	2	1 7	4	3	10	6	7 6	9	7	4	4 3	5	2	3	4	3 1	0 1	1	C	0	0	0	0) (0	0	0	0
Total Votes for "Need Infrequently" Total # of "Priority" responders	3	1 11	5 5 13 11	13	3 2	2 13	6 12	6 12 1	1 2	8	12 11	9 11	12	1 4 3 11	9	9 -	4 12 1	1 1	4 7 10 12	11	10	5	5 7 9 10	7 11	9	7 10	9	10 1	3 0	1	C		0	0	0		0	0	0	0
Averaged Priority (1 thru 10) Marin County	2.8	2.4	4.8 5.6	3.1	3.3	3.3	5.5	4.8	.3 1.7	3.0	3.1	5.0	.6 6.7	7 3.1	5.2	6.2 4	.5 4.	.5 3	.9 3.5	3.7	4.9	5.2	2 4.8	4.3	5.3	5.7 4	.7	4.1 3.	5 1.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Votes for "Need Everyday"	2	3	0 0	3	3	2	2	3	3 0	0	0	0	0 (0 1	0	0	1	0	0 0	1	1	1	1 0	0	0	0	0	1 :	2 0	0	C	0	0	0	0) (0	0	0	0
Total Votes for "Need Infrequently" Total # of "Priority" responders	3	0	3 2	3	0 3	3	1	3	3 0	3	2	2	2 (0 2	2	2	2	2	1 3	2	1	1	0 3	3	1	2	1	1	1 0		C		0	0	0		0	0	0	0
Averaged Priority (1 thru 10) Merced County	1.3	1.3	8.3 9.5	5.0	2.3	5.3	5.7	4.7	.7 0.0	1.0	1.0	1.0	.0 0.0	7.5	8.5	8.5 6	.5 8.	.5 10	.0 3.0	4.0	5.0	8.0	7.5	6.5	5.0	3.5	5.0	3.0 5.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Votes for "Need Everyday"	(0	0 0	0	0	0	0	0	0 1	1	1	0	0 (0 0	0	0	0	0	0 0	0	0	C	0 0	0	0	0	0	0	0 0	0 0	C	0	0	0	0) (0	0	0	0
Total Votes for "Need Infrequently" Total # of "Priority" responders	1	1	1 1	1	1 1	1	1	1	1 0	0	0	1	1 (0 1	1	1	1	1	1 1	1	1	1	1 1	1	1	1	1	1	1 0		C		0	0	0		0	0	0	0
Averaged Priority (1 thru 10)	10.0	10.0	10.0 10.0	10.0	2.0	6.0	5.0	4.0 9	.0 3.0	1.0	4.0	8.0 10	.0 0.0	10.0	10.0 1	0.0 10	.0 10.	.0 10	.0 8.0	10.0	10.0	10.0	0 10.0	10.0	7.0	7.0 10	0.0	9.0 8.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Orange County Total Votes for "Need Everyday"	10	10	7 2	9	8	8	7	6 1	0 1	2	1	1	3	1 3	5	2	5	5	4 5	6	3	2	2 3	8	1	2	2	2	6 0	0 0	C	0	0	0	0	(0	0	0	0
Total Votes for "Need Infrequently" Total # of "Priority" responders	9	0	3 4 8 3	1 8	1 2 3 8	2	3	8	8 3	7	9	7	7	0 <u>5</u>	3 4	7 5	5	5	3 5	<u>3</u>	5 4	3	3 4 2 4	6	6 3	6	3	6	3 0 5 0		0	0	0	0	0		0	0	0	0
Averaged Priority (1 thru 10)	2.4	1.0	4.9 7.0	3.3	3.3	2.5	4.3	4.1 2	.3 1.7	2.6	4.3	3.0 4	.3 5.0		5.0	6.4 2	.8 3.	.2 4	.0 1.6	1.2	4.5		•		4.3	4.8 6	5.0	2.5 2.	6 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Placer County Total Votes for "Need Everyday"		1	0 0	1	1	1	1	0	1 0	0	0	0	1	1 1	0	0	1	0	1 1	0	1	1	1 0	0	0	1	1	1	1 0	0 0	C	0	0	0	0) (0	0	0	0
Total Votes for "Need Infrequently" Total # of "Priority" responders	(0	1 1	0	0	0	0	0	0 1	1	1	1	0 (0 0	1	1	0	1	0 0	1	0	0	0 1	1	1	1	1	0	0 0		0	0	0	0	0		0	0	0	0
Averaged Priority (1 thru 10)	2.0	2.0	5.0 5.0	6.0	2.0	10.0	9.0	3.0 2	.0 1.0	1.0	1.0	8.0	.0 9.0	0 10.0	10.0	5.0 10	.0 10.	.0 5	.0 1.0	10.0	10.0	8.0	0 10.0	10.0	9.0	3.0	3.0	7.0 8.		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Riverside County Total Votes for "Need Everyday"	4	4	2 0	5	5 4	4	2	1	3 0	1	0	0	0 (0 1	1	1	3	3	3 2	3	2	2	2 2	3	1	2	2	2	4 1	<u> </u>		0	0	0	0) (0	0	0	0
Total Votes for "Need Infrequently" Total # of "Priority" responders	(<u> </u>	0	3 4 5 4	0	0 4	1	<u>3</u>	4 5	1 1	4	5	5	5 (0 4	3	3	4	4	2 1	1	1 3	1	1 0 3 4	2	3 4	5	2	5	1 0 5 1	0	C	0	0	0	0		0	0	0	0
Averaged Priority (1 thru 10)	5.5	3.0	6.0 5.0	4.8	3.3	3.6	4.4	•	-		3.2	3.6	.6 0.0		5.8	5.3 2	•	.3 5	.0 1.3	4.4	5.3	4.7	•			_	•	3.2 3.		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sacramento County Total Votes for "Need Everyday"	3	3	0 0	2	2 3	3	1	1	3 0	3	1	0	0	1 1	1	0	0	0	2 2	0	0	1	1 0	1	0	2	3	2	2 0	0 0	1	0	0) 1	0) (0	0	0	0
Total Votes for "Need Infrequently" Total # of "Priority" responders	0	0	3 2	1	0	0	1 2	2	0 0	0	2	3	3 (0 1	1 2	3	3	3	1 1	3	2	1	1 2	2	3	1	3	1	1 0) (0	1	1	0	0	(0	0	0	0
Averaged Priority (1 thru 10)	3.0	1.3	6.3 10.0	4.0	3.7	1.7	5.3	4.0 1.	•		2.7	7.7	.0 4.0		5.5	6.5 6	_	.0 3	.5 2.0	6.0	10.0	10.0				3.7 2	2.0	1.3 3.	o o	0.0	1.0	1.0	2.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0
San Bernardino County Total Votes for "Need Everyday"		2	2 1	2	2 1	1	2	0	2 0	2	2	0	0 (0 0	1	1	1	2	1 0	0	0	C	0 0	2	1	1	1	0	2 0) C	C	0 0	0	0 0	0		0	0	0	0
Total Votes for "Need Infrequently"		0	0 1	0	1	1	0	2	0 0	0	0	2	2	2 1	1	1	1	0	1 2	2	2	1	1 2	0	1	1	1	2	0 0		C	0	0	0	0		0	0	0	0
Total # of "Priority" responders Averaged Priority (1 thru 10)	10.0	10.0	8.0 6.0	8.0	7.0	6.0	8.0	5.0 7	•		10.0	6.0	.0 6.0		6.0	6.0 0	.0 8.	.0 8	.0 6.0	6.0	5.0	6.0				3.0 E	5.0	7.0 8.		•	0.0	0.0		0.0	0.0	0.0	•	0.0	0.0	0.0
San Diego County Total Votes for "Need Everyday"	9	4	2 1	3	3 3	4	3	2	3 0	3	1	1	1 (0 3	1	0	4	2	4 1	3	1		0 0	1	1	2	4	1	3 0) () () 0) 0	0 0) 1	1	0	0
Total Votes for "Need Infrequently"		1	3 4	0	2	0	2	3	1 1	2	4	4	4	1 1	2	4	0	0	1 2	0	1	1	1 1	3	2	2	1	4	2 0		Č		0	0	0		0	0	0	0
Total # of "Priority" responders Averaged Priority (1 thru 10)	4.3	1.3	5.3 6.0	2.0	2.0	1.5	4.3	3.3 2	3 1 .7 5.0	3.0	2.8	3.7	3 0.0		5.0	3.7 3	.5 3.	.5 3.	.0 5.0	3.0	4.0	4.0	1 1 0 5.0		5.0	3 2.7 2	2.5		4 0 8 0.0	0.0		0.0	0.0	•	0.0		0.0	0.0	0.0	0.0
	7.0								0.0	, 5.0							J. J.		0.0	0.0	1.0		5.5						. 0.0									3.0	3.0	

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	p	and		CC		Sma	gu .	(sple	<u>a</u>	1	s and			r-rorming icident br					I.	Remo	te senso	monito	ing				I.	Remote s	ensor n	nonitoring	9	ر		aple		and/o	by to stworks				(Other a	pplication	is listed t	y respon	nding ager	ncies			
REQUIREMENT (Note: If no response was received from a County or any of its Cities, it is hidden from view [not printed])	a. Image transfer (e.g., mug shot, finger orint, et cetera)	Real time access to federal, state, cal databases	. Real time video	I. Airborne video downlink (requires F	variet) . Client device file download/upload	on-s	display (real time overview map showi location of resources and personnel)	 Mobile devices (laptop and handhe iccess to multimedia databases 	 Access to Internet resources (satell magery, other data etc.) 		2 2 t	. Ad-hoc self forming networks	Fires, HAZMAT, and multicasualty	ncidents Multijurisdiction and multi-agency	lisaster incidents	Wide–area search and rescue nissions	Planned events; e.g., celebrations, rarades, concerts	Remote sensor monitoring	Supervisory Control and Data	kcquisition (SCADA)	Web CAM) Kobotic CAIM	Intrusion Alarms	System anomalies	b Biometric monitoring (e.g., from nobile 12-lead EKG units, Firefighter idometric vests, et cetera)	Detection of chemical, biological, adiological, and other hazards	Perimeter alarms	o Radio frequency identification (RFID) tags (inventory	issessment/control)	RF ID Bracelets (Patient stats)	n. Voice recognition and activation	. Software upgrades or software tech upport	. Update messaging signs on roads	. Emergency Alert of resources avail	. Emergency medical reporting	. Contingency restoration, recovery, so tegration of fire, police, and ambulan olice communications (via VoIP)	Making use of 4.9 GHz coverage I tending it inside strategic buildings cess external public safety data ne	Other (identify): Thermal Imager CDF/Merced Co Fire)	Other (identify): Diff GPS Orrections (City of LA)	Other	Other (identify)	k Grove CSD Fire)	phots	 Other (identify): Instant Messaging (Sac Co SRRCS) 	Other (identify): Remote site WAN connectivity (CDF)	aa. Other (identify): Building-to- ouilding connectivity (CDF)	ab. Other (identify): Point-to-point Microwave (NCFPD SDCO)	ac. Other (identify): Video Teleconferencing (NCFPD SDCO)	ad. Other (identify): IP Telephone Interconnect (Santa Clara County (SCL)	ie. Other (identify): Fire Alarms Santa Clara County SCL)
San Francisco County	g g	<u>ة ق</u>	o'	σž	ĕ ψ	+	∌ੁ	9 9	≛. ≦	-	: .ـــــ ا	2 ند ة	22 0	⊆ o	ਰ	οE	0 8	_: §	0	₹	0	0	0	0	o E ' <u>ō</u>	0 6	0	∘ ⊔	ä	0	Ε	n. St	Ö	ď.	Ġ	⊹≘≯	g @ g	9 0	ΞÖ	> 5	୍ ≥ ଜି	ш ,	₹Œ;	× 00	иβ	Σő	≅ 5	ăБ	% <u>=</u> 0) ae ()
Total Votes for "Need Everyday" Total Votes for "Need Infrequently" Total # of "Priority" responders Averaged Priority (1 thru 10) San Joaquin County Total Votes for "Need Everyday"	8.0) (2) (3) (6)	5.0	1 2 0 2	0 1 1 1 2.0 4	2 2 4.5	2 0 2 5.0	2 0 2 4.5	4	2 2 4.0	1 1 2 4.5 4	2 0 2 5 0	0 0 0 0 0.0	0 1 2 2.5	0 1 2 2.5	0 1 2 4.5	5	2 1 2 5 0	0 0 0 0.0	1 1 2 3.5	2 0 2 6.0	2 0 2 5.0	2 0 2 4.0	1 1 2 2.5	1 1 1 4.0	6.	2 0 5	2 0 2 5.0	2 0 2 4.5	0 1 1 1.0	2 0 2 8.0	2 0 2 5.5	1 1 2 2.0	0 2 2 7.0	0 2 2 3.5	0 2 2 2.5	2 0 2 6.0	0.0	0 0 0 0 0 0.	0 0 0	0 0 0 0 0	0 0 0 0.0	0 0 0 0.0	0 0 0 0.0	0 0 0 0.0	0 0 0 0.0	0 0 0 0.0	0.0	0 (0) (0) (0) (0) (0) (0) (0) (0) (0) (0))) 0 C
Total Votes for "Need Infrequently" Total # of "Priority" responders	(3 :		3	3	3	1 3	3		3	3	3	1	1	1	3 1		1	0	2	2	2	2	2	2		2	2	2	1	1	1	1	1	1	1	1	(0	0	0	0	0	0	0	0	0	C	0	0
Averaged Priority (1 thru 10) San Mateo County Total Votes for "Need Everyday" Total Votes for "Need Infrequently"	2.3	1.	5.7	7 6 6 2	2 4	8 0	4.3 7 1	4.0 8 0	5	7	5.7 3 6 2	3 5	3	3.0	3.0 0 7	3.0 0 7	5	0 0 1 8	0	5.5 1 6	2.5 4 4	1 6	3.0	6.5	8.0 1 6	5.	5 4 1 7	1 6	7.0 5 2	5.0 1 6	3.0	3.0	4.0 3 5	1.0	3.0	1.0 4 3	1.0 8 0	0.0	0 0.	0 0	0 0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
Total # of "Priority" responders Averaged Priority (1 thru 10) Santa Barbara County	3.5	3.	4.	1 9	0.0 1	.6	2.6	2.0	2	2.6	3.8 5	.0 2	2.2	1.8	2.4	4.0	5	8 4 C	0.0	6.7	5.3	6.7	5.0	4.9	6.0	2.	5 3	7 3.9	4.1	4.3	6.6	4.9	5.6	3.0	3.4	2.9	2.9	0.0	0 0.	0 0	.0 (0.0	0.0	0.0	0.0	0.0	0.0	0.0	0 0.) 0
Total Votes for "Need Everyday" Total Votes for "Need Infrequently" Total # of "Priority" responders	()) (1 0 1	0	0	1 0 1	0 1		1	1	1 0 1	1	1	1	1		1	0	1	1	1	0	0	1 0 1		1	0	1 0 1	1 0 1	0 1	0 1 1	1	1	0 1	0 1 1	0	(0	0	0	0	0	0	0	0	0	0	0	0
Averaged Priority (1 thru 10) Santa Clara County Total Votes for "Need Everyday"	6.0	1.0	8.0	0 0	0.0 1	4	2.0	6.0	6	1	4.0 3	4	0	1.0	0	3.0	3	2	0.0	3	3	3	3	2.0	4.0	2.	2	2.0	2	2.0	4.0	3.0	6.0	7.0	5.0	4.0	1.0	0.0	0 0.	0 0	.0 (0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1
Total Votes for "Need Infrequently" Total # of "Priority" responders Averaged Priority (1 thru 10)	5.0	4.	5.8	0 4 8 6	3 3 5.3 5	4	4 4.5	1 4 5.5	4	4	2 4 6.0 5	0 4 .5	0 0 0.0	2 4 2.3	3 4 3.5	3 4 5.5	4	3 4 8 0	0	1 4 5.3	4 6.3	1 4 5.8	4 4.0	4 4.0	1 3 4.0	3.	2 4 5 3	0 4 3.8	4 5.5	3 5.7	4 8.0	2 4 5.5	4 6.8	4 4.5	4 5.0	3 4 3.5	3.3	0.0	0 0.	0 0	0 0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0 5.0	1 0 1
Santa Cruz County Total Votes for "Need Everyday" Total Votes for "Need Infrequently"	2	2	3	2	0 3	1 2	3	3		3	2	3	0	0	0	0		0	0	2	1 2	1 2	1 2	1 2	0		0	0 2	0	0 2	1	1	0	3	3	0 2	0	(0	0	0	0	0	0	0	0	0	0	0 (0
Total # of "Priority" responders Averaged Priority (1 thru 10) Solano County	3.0	2.	2.0	0 7	3 '.0 6	3	2.3	3 2.3	4	3	3 1.7 2	3	0.0	3.3	3.7	3.7	4	3 0 0	0.0	6.0	7.0	9.0	3 5.7	3 6.7	2.7	3.	3 8	3.3	5.7	3 6.7	7.3	2.3	10.0	3.0	2.0	3.7	1.7	0.0	0 0.	0 0	.0 (0.0	0.0	0.0	0.0	0.0	0.0	0.0	0 0.	0 C
Total Votes for "Need Everyday" Total Votes for "Need Infrequently" Total # of "Priority" responders	1		(5	0 5	1	5 0 5	6 0		1 4 5	3	6	2	0 5	0 5	0 6 5		0 6	0	3	0 5	3	3	3	1 4		2 3	3	1	3	3	4 1	3	1 4 5	3 2 5	0 5	5 0	(0	0	0	0	0	0	0	0	0	0	0	0
Averaged Priority (1 thru 10) Sonoma County Total Votes for "Need Everyday"	3.6	1.	7.8	8 8	0.8 7	1.4	3.4	3	6	5.6	4.4 3	.2 (6.5	2.6	2	3.4	4	2 7	7.5	7.2	7.4	6.2	7	7	5.6	5.	2 7	7.6	2.8	6.4	6.6	5.6	8	4.4	4.2	5	2.6		0	0	0	0	0	0	0	0	0	0	0	0
Total Votes for "Need Infrequently" Total # of "Priority" responders Averaged Priority (1 thru 10)	(0	0 (0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 0	0	0	0	0	0	0	0	0	0 0	0	0	0	0	0	0	0 0.0	0	0	0 0 0	0.0	0	0	0	0	0	0	0	0	0	0	0 0	0
Tehama County Total Votes for "Need Everyday" Total Votes for "Need Infraoruenth"	2	2	2 (0	0	2	1	0		0	0	1	0	1	1	1		1	0	2	0	0	0	0	1	0.	0	0	0	0	0	1	0	0	1	1	0.0	(0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0 0.	0
Total # of "Priority" responders Averaged Priority (1 thru 10) Tulare County	1.0	1.	7.0	2 6	2 5.5 2	2	4.5	2 6.0	5	2	2 3.5 5	2	0	2	2 2.0	2.5	3	2 0 5	1	2 3.0	2 3.5	2 4.5	2 3.5	2 4.0	2.5	2.	2 5 4	2	2 5.0	2 4.5	2	1.5	2 3.0	2 2.0	1.5	1.5	2.0	0.0	0 0.	0 0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0 0.	<u>)</u> 0 <u>0</u>
Total Votes for "Need Everyday" Total Votes for "Need Infrequently"			2	0	0	1	1	1		1	1 1	0	0	2	0 2	0		0 2	0	1	0 2	0	0 2	0	0		0	0 2	0	0	0	0 2	0	1	1	0 2	0 2	(0	0	0	0	0	0	0	0	0	0	0 (0
Total # of "Priority" responders Averaged Priority (1 thru 10) Tuolumne County	2.5	1.	5.0	0 7	7.0 3	3.0	3.0	2.5	4	.5	3.5 2	.5	1.0	1.0	1.0	1.0	4	0 0	1.0	3.0	5.5	3.0	4.0	2.0	4.0	6.	0 4	1.0	3.0	10.0	8.0	2.0	9.0	1.5	1.5	3.0	5.0	0.0	0 0.	0 (.0 (0.0	0.0	0.0	0.0	0.0	0.0	0.0	0 0.1	0
Total Votes for "Need Everyday" Total Votes for "Need Infrequently" Total # of "Priority" responders	(0	•	0	0	0		0	0	0	0	0	0	0		0	0	1 0	0	1 0	0	1 0	0		0	1 0	0	0	0	0	0	0	0	0	0	(0	0	0	0	0	0	0	0	0	0	0 0	0
Averaged Priority (1 thru 10) Yuba County Total Votes for "Need Everyday"	0.0	0.0	0.0	2	0.0 0	2	0.0	0.0	0	2	0.0 0	2	0.0	1	0.0	0.0	0	0 0	0.0	0.0	2	0.0	0.0	0.0	0.0	0.	1	1	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
Total Votes for "Need Infrequently" Total # of "Priority" responders Averaged Priority (1 thru 10)	2.0	1.0	4.5	0 2 5 2	1 1 2.0 2	2 2.0	0 2 3.5	2.5	3	2 3.5	2 2 3.5 1	0 2 .0 ;	1 1 3.0	1 2 2.0	2 2 1.5	2 2 2.0	4	2 2 5 0	0	2 3.0	2 3.5	2 3.0	1 1 6.0	2 3.0	2 2 4.5	2.	1 2 5 4	0 1 1.0	1 4.0	0 1 2.0	2 2.0	2 3.5	2 2 4.5	2 2.5	1 2 3.0	1 2 2.5	0 1 1.0	0.0	0 0 0 0.	0 0	0 0 0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0 0.0) 0 C
State of California Agencies Total Votes for "Need Everyday" Total Votes for "Need Infrequently"	1			1	0	1	1	1		1	1 0	1 0	0	1 0	0	0		0	0	1 0	1 0	0	1	1	1		1	1 0	1 0	1	1	0	1 0	1	1	0	0	(0	0	0	0	0	0	0	0	0	0	0 (0
Total # of "Priority" responders Averaged Priority (1 thru 10) Private EMS Providers	3.0	2.0	5.0	0 7	7.0 4	1	3.0	3.0	5	5.0	4.0 4	.0 (0.0	2.0	3.0	4.0	5	0 0	0.0	5.0	5.0	6.0	5.0	5.0	5.0	4.	0 4	1.0	5.0	6.0	5.0	4.0	6.0	4.0	4.0	4.0	3.0	0.0	0 0.	0 0	.0 (0.0	0.0	0.0	0.0	0.0	0.0	0.0	0 0.0) 0
Total Votes for "Need Everyday" Total Votes for "Need Infrequently" Total # of "Priority" responders	() (1 0	1 1	1 0 1	1 0 1	1 0 1		0	1 1	1	0	1	1	1 0 1		1	0	1	0	1 0 1	1 0 1	0	1 0 1		1 0	1 0 1	1 0	1 0 1	1 0	1	1	0	1 0	0 1 1	1	(0	0	0 0	0 0	0	0 0	0	0 0 0	0	0	0) 5 0
Averaged Priority (1 thru 10)	- 3	3	2	3	10	5	3	3		7	7	7	0	3	3	3		3	0	5	3	2	4	1	1		1	4	3	3	6	9	10	2	1	7	10	(0	0	0	0	0	0	0	0	0	O	0)